



ELECTRICAL ENGINEERING

FEBRUARY - MARCH. Dominating the calendar year's first quarter, these are "opportunity months" for all Units of IEEE's organization—Groups, Conferences, Councils, Boards, Committees, Regions, Sections, Subsections, Chapters, Student Branches.

Has January-1st turnover in personnel brought you, for the first time, into IEEE's "shirtsleeves muster" which receives "Electrical Engineering" (E. E.)? Good going! To you, carry-over business becomes new business. Add your own enthusiasm and innovations: so IEEE grows.

FRONT PAGE FOR IEEE CONVENTION/EXHIBITION. At New York, Monday-Thursday, March 20-23—"where authors and exhibitors learn and teach." Here is IEEE's noblest annual effort in mass re-education and uplift through ear, eye, and extended hand. Last year's registration: 63,450. Only a little over a month remains for last-minute perfecting of plans by all participating Units. Program: all members receive direct-mail piece, end of January; also see March "Spectrum."

Formula for crash rendezvous: Say: "Meet you IEEE Hospitality Desk, New York Hilton Hotel, 53rd St. & 6th Ave., 2nd floor Promenade Area, [exact time, day, date]. Failing, after 20 minutes will leave you note on nearby Message Board." Computer-compiled list posted there will carry hotel names furnished by registrants.

Contacts with staff personnel, always a 2-way benefit. Staff assignments divided between headquarters and Convention. Staff names, duties, in latest issue of Spectrum, 4th page from front. Headquarters phone for appointment: PL 2-6800; ask for IEEE and person wanted. To reach headquarters: taxi "345 East 47 at U. N. Plaza." Building is United Engineering Center (UEC); IEEE reception, 10th floor. By bus: north-south subways have Local train exits on 50th St. Take "50th St. Crosstown" bus going east; east terminus is in front of UEC.

(Note: All names so shown at the end of items in E.F.E. are of IEEE staff.
Address: IEEE, 345 East 47th Street, New York, N. Y. 10017. Phone: Area Code 212-PL 2-6800.)

GROUPS SHIFT TO CALENDAR YEAR. By action of the Technical Activities Board (TAB— which itself, like BofD, has operated on a calendar year), all Groups which heretofore have had administrative years like July-to-June will phase in on calendar years beginning January 1, 1968. Necessary modifications of Group Constitutions and Bylaws should be submitted without delay for TAB chairman's approval. It is expected that most such Groups will elect either: (1) that the terms of incumbent 1966-67 officers and committees be extended during the remainder of 1967; or (2) that 1967-1968 officers and committees now being elected take office in mid-1967 and serve 18 months.

No changes in Sections or Chapters are involved in this.

YEAR-END RETURNS DUE. All Units would do well to review their obligations to make specified annual reports. An especially important report is the annual Section financial return on forms already provided the Sections, returnable no later than Feb. 15. For Sections in the United States, these statements have to be consolidated in IEEE's Federal Information Return. (Inquiries, W. J. Keyes)



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

DIRECTORS-AT-LARGE <i>Elected by members</i>		REGIONAL DIRECTORS <i>Elected by Regional members</i>	
1 Walter K. MacAdam President	1967-69 1967 †	1 William C. Dunlap	1966-67
2 Hendley Blackmon Vice President	1967 †	2 John G. Brainerd	1967-68
3 Bernard M. Oliver Senior Past President	1965-67 1967	3 Rufus G. Fellers	1966-67
Secretary	1967 *†	4 David M. Hodgkin	1967-68
4 William G. Shepherd Junior Past President	1966-68 1967	5 Carl R. Wischmeyer	1966-67
5 Floyd H. Knapp	1965-67	6 Stanley F. Kiesel	1967-68
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7 Edwin L. Harder	1966-68	8 Robert C. G. Williams	1967-68
8 John G. Truxal	1966-68		
9 Harold Chestnut	1967-69		
10 Edward E. David, Jr.	1967-69		
DIRECTORS EMERITUS			
		Alfred N. Goldsmith also Editor Emeritus	
		Haraden Pratt	
		Elgin B. Robertson	
<i>Elected by Assembly</i>		EXECUTIVE COMMITTEE	
1 Seymour W. Herwald Vice President	1967	MacAdam	
Technical Activities	1967 *†	Oliver	
2 F. Karl Willenbrock Vice President	1967	Nominations & Appointments	
Publication Activities	1967 *†	Education	
3 John V. N. Granger Treasurer	1967	Admission & Advancement	
4 Guillermo J. Andrews Director Region 9	1967	Intersociety Relations	
5 Shigeo Shima Director Region 10	1967 *	Sections	
6 Robert W. Gillette	1967	Membership & Transfers	
7 A. U. Lamm	1967	Student Branches	
8 J. Earl Thomas	1967	Technical Activities	
9 George R. Town	1967	Publication Activities	
		Finance	
		Employee Benefits	
		Awards	
		History	
		Internal Communications	
		Professional Relations	

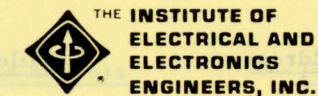
*Elected by the 1967 Assembly to these positions.
†Corporate Officers.

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A standing invitation is extended to all organizational units to submit ideas and comments of probable general interest. Address:

I. S. Coggeshall, Editor "E.E."
IEEE, 345 East 47th Street
New York, N.Y. 10017 (USA)

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IEEE SPEAKERS DIRECTORY

REGION 1

Section	Speaker and Address	Title of Speech	Date Presented
Elmira-Corning	Richard A. White Westinghouse Electric Corp. Elmira, N. Y.	"Lunar Camera Tube"	12/12/66
	Joseph Jensen, c/o R. A. White 920 Grand Central Ave. Horseheads, N. Y. (Section Secy)	"The St. Louis Arch"	12/9/66
Emporium-Ridgway	Dr. Robert M. Bowie United Engineering Center 345 East 47 Street New York, N. Y.	"United Engineering Information System"	12/12/66
Ithaca	Prof. S. J. Mason Mass. Institute of Technology Cambridge, Mass	"Progress on a Reading Machine for the Blind"	12/6/66
Mid-Hudson	Mr. Walter K. MacAdam A. T. & T. Co. 195 Broadway New York, New York	"The Relationship Between Information Retrieval and Man's Ability to Absorb"	1/17/67
Mohawk Valley	Donald R. J. White, President White Electromagnetics, Inc. Rockville, Maryland	"Electromagnetic Compatibility - Its Definition, Problems and Future"	1/10/67
New Hampshire	Raymond E. Isaacson, Mgr. G. E. Product Dev. Engrg. Bridgeport, Conn.	"Cross-Linked Polyethylene Insulation"	12/14/66
	Edward K. Bullock, Mgr. G. E. Applications Engrg. Lynn, Massachusetts	"Fuel Cells"	12/14/66
Providence	Richard S. Austin Naval Underwater Weapons Research & Engrg. Station Newport, R. I.	"Exploring Autec Depth Aboard Alvin"	12/13/66
Rochester	Charles Vaderson, Assoc. Dir. General Dynamics/Electronics 1400 N. Goodman Street Rochester, N. Y.	"After Graduation - What?"	12/8/66
Springfield	P. H. Linsley Esterline-Angus Natick, Mass.	"Transducer Inputs for Recording Instruments"	12/5/66
	C. E. Gneere NACON Corp. Cambridge, Mass.	"Sodium Conductors"	12/5/66

REGION 1 Continued

Section	Speaker and Address	Title of Speech	Date Presented
Vermont	Leroy Blake IBM Process Engineering Essex Junction, Vt.	"Silicon Semiconductor Processing"	1/9/67
	Dr. Wilfrid Roth Dr. Stanley Rush Dr. Charles Taylor Univ. of Vt., E. E. Dept. Burlington, Vt.	"Electrical Engineering in Medicine"	12/5/66
Worcester County	Thomas B. Foley Applications Engineer Simplex Wire & Cable Co. Cambridge, Mass.	"New Polyethylene Applications Through 138 KV"	1/17/67
	Harold A. Melden, Jr., Dir. Commercial & Indus. Dev. Worcester Gas Light Co. Worcester, Mass.	"On-Site Power Generation"	12/13/66

REGION 1 - SUBSECTIONS

Adirondack	M. E. Clark, Mgr. Integrated Circuit Engrg. G. E. Semiconductor Products Syracuse, N. Y.	"Processing of Silicon Integrated Circuits"	1/10/67
New London	Dr. R. Grant G. C. Optronics, Inc. Ann Arbor, Mich.	"Active Sonar Transducer Analysis by Interference Holography"	1/10/67
	John P. Ermatinger Electric Boat Div. Groton, Conn.	"Speed Control of Motors"	12/14/66
St. Lawrence International	Richard Pratt IBM Owego, N. Y.	"Aerospace Digital Computers"	12/14/66

REGION 2 - SECTIONS

Cincinnati	Harold Whitmore G. E. Large Lamps Div. 990 Nassau Street Cincinnati, Ohio	"Lighting Your Home for Christmas"	12/14/66
Delaware Bay	Dr. W. Stanton Kip G. E. Space Technology Center Valley Forge, Pa.	"Space Medicine"	12/5/66
Erie	Lee Straw Technical Services Div. Pennsylvania Electric Co. Johnstown, Pa.	"Electric Heat Calculations and Installation"	12/7/66
Johnstown	Frederick Michel, V. P. Data Consultants, Inc. Johnstown, Pa.	"Practical Computer Application to Engineering Problems"	12/20/66

REGION 2 Continued

Section	Speaker and Address	Title of Speech	Date Presented
North Central Ohio	Peter Kyle IBM Mansfield, Ohio	"How Computers Affect The Engineer"	1/12/67
	Cort Hepner IBM Mansfield, Ohio	"Computer Programs and Computerized Graphics"	1/12/67
Sharon	James H. Davis (Address Unknown) Contact Section Secretary: Kevin. F. Friedrich 102 Euclid Ave. Sharon, Pa. 16146	"Current Developments in Shenango Valley Area"	1/11/67
	Charles B. Heffron Westinghouse Electric Corp. T. V. Radio Division Route 27 Metuchen, New Jersey	"Color T. V."	12/14/66
Susquehanna	Charles A. Taylor, Mgr. of Reliability Assurance Advanced Interplanetary Projects G. E. Company Valley Forge, Pa.	"Unmanned Exploration of Mars"	1/3/67
	Robert J. Buzzard Project Leader RCA Lancaster, Pa.	"Thermionic Converters"	12/6/66
West Virginia	Walter Senges Sylvania Electric Products, Inc. Waltham, Mass.	"Integrated Circuits"	12/12/66

REGION 2 - SUBSECTIONS

Annapolis	James McGettigan Western Electric Co. Cockeysville, Md.	"Telephone Switching System"	12/7/66
Eastern Shore	Walter Michalke (Address Unknown) Contact Section Secy.: Albert A. Smith, Jr. Box 76, RFD 2 Annapolis, Md.	"Super Highways of Power"	12/6/66
Upper Monongahela	D. H. Griffith, Mgr. Chesapeake and Potomac Tel. Co. Fayette Street Morgantown, West Virginia	"The NORAD Story"	12/8/66

REGION 3 - SECTIONS

Alabama	George Miller G. E. Utilities Applications Div. Birmingham, Alabama	"EHV Direct Current Transmission"	1/9/67
Atlanta	Dr. B. E. Keiser, Mgr. Systems Support Section RCA Service Co. Kennedy Space Center, Fla.	"Spaceport Communications, Present and Future"	1/16/67

REGION 3 - Continued

Section	Speaker and Address	Title of Speech	Date Presented
Central Virginia	S. Wagner; M. W. Willis Power Station Design Virginia E. & P. Corp Richmond, Va.	"VEPCO Atomic Reactor Power Station"	12/1/66
Chattanooga	L. B. Marks, Moderator P. S. Button, F. Chambers, F. Daires and T. D. Hardin (Addresses unknown) Contact Section Secretary: R. C. Crawford 203 Power Building Chattanooga, Tenn.	Panel Discussion: "A Look Into the Future for Underground Distribution and Transmission"	12/6/66
Daytona	Murray Gunsberg Nimbus Satellite Project General Electric Co. Philadelphia, Pa.	"Nimbus Satellite Operation"	12/8/66
East Tennessee	Aubry J. Wagner Tennessee Valley Authority Knoxville, Tennessee	"The Tennessee Valley - Valley with a Future"	1/10/67
	Dr. Milton Bailey Sprint Project The Martin Co. Orlando, Florida	"Design of Missile Control"	12/13/66
Eastern North Carolina	Louis B. Early COMSAT, Economic Analysis Dept. Washington, D. C.	"The COMSAT Story"	12/9/66
Evansville-Owensboro	Frederick Roberts General Electric Co. Indianapolis, Indiana	"Extra High Voltage Direct Current Transmission"	1/10/67
	Dr. R. G. Fellers College of Engineering University of South Carolina Columbia, South Carolina	"Trends in Engineering Education"	12/13/66
Jacksonville	Eugene C. Nalle City Hall, Room 500 City of Jacksonville Jacksonville, Fla.	"The Engineer and Mathematics"	12/12/66

REGION 3 Continued

Section	Speaker and Address	Title of Speech	Date Processed
Memphis	L. E. Goff Sr. Application Engineer General Electric Co. Philadelphia, Pa.	"Fundamentals of Static Relays"	12/12/66
Nashville	Robert Petrina Alladin Industries Nashville, Tennessee	"Advances in High Frequency Lighting"	1/5/67
	Joseph Thompson Special Agent, Insurance Co. Northwestern Mutual Life Ins. Co. Nashville, Tennessee	"Unidentified Flying Objects"	12/1/66
Oak Ridge	Fred Brown Systems Engineer IBM Knoxville, Tenn.	"Recent Advances in Computer System Application"	1/12/67
	R. B. Korsmeyer Oak Ridge National Laboratory P. O. Box X Oak Ridge, Tennessee	"Energy, Economics, and Edacity"	12/8/66
Palm Beach	Henry Peerson Audio Hi-Fidelity West Palm Beach, Fla.	"High Fidelity Sound Demon- stration"	12/15/66

REGION 3 - SUBSECTIONS

Columbia	Hideo Sao University of South Carolina Columbia, South Carolina	"Some Mathematical Aspects of Speech Compression"	12/12/66
Jackson	Ken Krapf Illuminating Engineer General Electric Co. Memphis, Tenn.	"Application of Area and Industrial Lighting"	12/13/66
Paducah	Bill Long Chief Eng'r. CTS Company Paducah, Kentucky	"Construction and Operation of Loud Speakers"	12/19/66

REGION 4

Central Indiana	Frank Edwards, Author (Address Unknown) Contact Section Secretary: Charles E. Ohlman 3035 Radford Drive Indianapolis, Ind.	"UFO-Fact and Fancy"	1/12/67
Central Iowa	Dr. C. E. Lamoureux Meteorologist In Charge United States Weather Bureau Des Moines, Iowa	"Electronics in Weather"	12/15/66
Illinois Valley	W. Stan Curtiss Test Engineering Caterpillar Tractor Co. East Peoria, Illinois	"Electronic Controls & Testing - Gas Turbines"	1/5/67

REGION 4 Continued

Section	Speaker and Address	Title of Speech	Date Presented
Illinois Valley - Cont.	J. R. Buckhart Application Engineering General Electric Co. St. Louis, Missouri	"Extra High Voltage Transmission"	12/1/66
Nebraska	James Malkowski Dir. of Fontenelle Forest Omaha, Nebraska	"A Nature's Center, Fontenelle Forest"	12/16/66
Northeast Michigan	John F. Christian Assistant Director Longway Planetarium Flint, Michigan	"Results of Today's Space Efforts and Their Effects on our Future"	12/15/66
Rock River	A. E. Campbell Toll and Special Services Illinois Bell Telephone Co. Rockford, Illinois	"Communications: Prologue to Tomorrow"	12/9/66
South Bend	Robert O. Noyer, Dir. Product Repair Collins Radio Cedar Rapids, Iowa	"The Well Rounded Square"	12/1/66
West Michigan	W. R. Hoffmeyer Performance Design Dev. G. E. Co., Holland, Mich.; M. Popowniak, G. E. Co. Detroit, Mich.	"Digital Computers - Principles and Applications in Industry"	1/12/67
	Robert Clark Morton Manufacturing Co. Muskegon, Michigan	"Numerically Controlled Machine Tools"	12/8/66

REGION 4 - SUBSECTIONS

Burlington	Jack Foster G. E. Audio Products Decatur, Illinois	"Video Tape Recording at Home"	12/8/66
Calumet	Donald W. Ruby 178 Hillcrest Court Roselle, Ill. 60172	"Micro-Miniaturization"	1/9/67
Fox Valley	Edgar R. Bruchlacher; N. King; R. Loewe, Sr.; J. Ranheim; E. Walkley (Address Unknown) Contact Subsection Chairman: Leonard A. Bateman 4525 Elm Street Downers Grove, Ill.	Panel Discussion: "Arc Interruptions in Power Circuits"	12/7/66
Racine-Kenosha	Dave Bowers Project Eng'r. G. E. X-Ray Milwaukee, Wisc.	"Electronics On and Beneath the Skin"	12/7/66

REGION 5 - SECTIONS

Arkansas	Lee Reaves, Dir. Arkansas Educational TV Commission Conway, Arkansas	"Educational TV - Things Done and Things to Come"	12/9/66
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REGION 5 Continued

Section	Speaker and Address	Title of Speech	Date Presented
Kansas City	John R. Brassfield Associate Engineer Midwest Research Inst. Kansas City, Mo.	"Considerations in the Design of Large Paraboloidal Antenna Feeds and a Survey of Interesting Design Approaches"	1/12/67
	A. S. Braytenbah Control Engineer Westinghouse Electric Corp. Lester, Penna.	"Electro-Hydraulic Control System for Large Steam Turbine Generators"	12/12/66
Ozark	Jimmie Delle Caldwell (Address Unknown) Contact Section Secretary: Hugh H. Brewer, Jr. Southwest Electric Power Co. Fayetteville, Arkansas 72701	"Wheel of Fortune"	12/15/66
Shreveport	R. W. Kettlety Dir. of Engrg. UGC Instruments, Inc. Houston, Texas	"Store and Forward Data Handling"	1/10/67
	Thomas N. Hand Electric Utility Process Automation Engineer General Electric Co. Dallas, Texas	"The Future of Process Automation"	12/13/66
South Plains	B. J. Hood Southwestern Bell Tel. Co. Forth Worth, Texas	"Lasers"	12/13/66
West Central Texas	Ron Henderson Sales Representative Allis-Chalmers Mfg. Co. Abilene, Texas	"Beauty Trends in Electric Generation, Transmission and Distribution"	1/9/67
	Jacques Van Onselen Rotary Foundation Fellowship Student Port Elizabeth, South Africa	"A South African's Impressions of Our Country"	12/6/66

REGION 6

Alamogordo-Holloman	Brian Fitzgerald; Dr. Jack Peters Sylvania ARL Waltham, Mass.	"Automatic Laser Tracking System"	12/7/66
Boise	Arnold Bahr Idaho Power Co. Boise, Idaho	"Sand Box Demonstration of Soil Corrosion Measurements"	12/14/66
Orange County	Dr. Gene La Fond U. S. Naval Electronics Lab. San Diego, Calif.	"Oceanographic RSH Using Submersibles"	12/14/66
Sacramento	Maurice B. Andrew Head of Nuclear Unit Dept. of Water Resources State of California Sacramento, Calif.	"Department of Water Resources Plans for Nuclear Power Plants"	12/15/66

REGION 6 Continued

Section	Speaker and Address	Title of Speech	Date Processed
Spokane	William Greer District Utility Engineer Westinghouse Electric Corp. Box 7965 Portland, Ore.	"Atomic Power, Past, Present and Future"	12/1/66
Wenatchee	James Click; Gerald Copp, Chelan County PUD Wenatchee, Washington	"The Underground Electrical Installation at Mission Ridge"	12/6/66
	Kyle Younker Chief of Ski Patrol Wenatchee Mountain, Inc. Wenatchee, Washington	"Illustrated Talk on General Construction of The Mission Ridge Ski Area"	12/6/66

REGION 6 - SUBSECTIONS

Eugene	John Forbes (Address Unknown) Contact Section Secy.: E. Robert Mooney, Jr. 1600 Western Ave. Corvallis, Oregon	"New Developments in Light Sources"	12/8/66
Reno	William Henderson Bell of Nevada 160 West First St. Reno, Nevada	"Bell System Science Aids to Schools"	12/15/66
San Joaquin	H. W. Thomson Chief Tracy Field Div. U. S. Bureau of Reclamation Box 570 Tracy, Calif.	"USBR - CVP - California Aqueduct in San Joaquin Valley"	12/12/66

REGION 7

Canadian Atlantic	R. H. Tanner, Mgr. Microwave Laboratory Northern Electric Co., Ltd. Ottawa, Ontario, Canada	"Recent Developments in Telecommunications"	12/14/66
London	Dr. A. G. Davenport University of Western Ontario, London, Ontario, Canada	"Wind Tunnel - A Bridge Between Research and Design"	1/10/67
	D. L. Duff C. W. Co., P. O. Box 510 Hamilton, Ont. Canada	"Static Inverters"	12/7/66
	Donald Prendergast C. W. Co., Dept. WE 4 Hamilton, Ont. Canada	"Marketing Switchgear"	12/7/66
Niagara International	D. Femiano SPIN -10 Project Bell Aerosystems Co. Wheatfield, N. Y.	"Bell's Automatic Landing System"	12/1/66

REGION 7 Continued

Section	Speaker and Address	Title of Speech	Date Presented
Niagara International - Cont.	W. T. Quirk Field Test Services Bell Aerosystems Co. Wheatfield, N. Y.	"Film on Bell's Products with Briefing on Highlights"	12/1/66
Northern Alberta	L. M. Hovey Consulting Eng'r. Manitoba Hydro Box 815 Winnipeg 1, Manitoba, Canada	"Generation and Transmission Aspects of the Phase I Nelson River Development"	1/12/67
Southern Alberta	L. M. Hovey Consulting Eng'r. Manitoba Hydro Box 815 Winnipeg 1, Manitoba, Canada	"Generation and Transmission Aspects of the Phase I Nelson River Development"	1/13/67
Toronto	Harold Wright (Address Unknown) Contact Section Secy.: John R. Leslie Ont. Hyd. Dobson Res. Lab. 200 Kipling Ave., S. Toronto, Ontario, Canada	"Color Television"	1/16/67
	E. G. Bainbridge Municipal Service Eng'r. (Address Unknown) Contact Section Secy. (Above)	"Volta River Project - Ghana West Africa"	12/5/66

REGION 7 - SUBSECTIONS

Guelph	H. W. Haberl Quebec Hydro Montreal, Quebec, Canada	"E.H.V. AC & DC Transmission"	12/6/67
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REGION 8 - SECTIONS

Benelux	J. Neyrinck (Address Unknown) Contact Section Secy./Treas.: Werner Lulofs 9 Der Kinderenlaan Laren, N. H., Netherlands	"Filtering Problems in Carrier Telegraphy"	12/9/66
Egypt	Galal El-Mahdy Research Eng'r. Electric & Electronic Industries Est. Cairo, Egypt	"Electron - Gun Manufacture"	12/12/66
	Pr. Dr. Abdel-Samie Mostafa Dean, Faculty of Engineering Hadara, Alexandria, U.A.R.	"Researches in Electronics"	12/4/66

REGION 9 - SECTIONS

Mexico	Carlos Nunez Arellano (Address Unknown) Contact Section Secy.: Antonio Cardenas Loeza Apdo, Postal 56 Naucalpan, Mexico	"La Contribucion De Mexico A Las Investigaciones Espaciales"	12/8/66
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AEROSPACE & ELECTRONIC SYSTEMS - GROUP CHAPTER MEETINGS

<u>REGION 1</u>			
<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Long Island	Harold E. Nash U. S. N. Underwater Sound Lab. New London, Conn.	"Characteristics of the Ocean Which Influence the Application of Underwater Acoustics in Sonar and Other Systems"	12/13/66
<u>REGION 3</u>			
Canaveral	James B. Curry (Address unknown)- Contact Section Secretary: Horst A. Poehler 400 Third Ave., Sea Park Homes Eau Gallie, Fla.	"Constant Bandwidth Applications"	12/6/66
<u>REGION 7</u>			
Ottawa	Lt. Gen. L. C. G. Lilley Canadian Defense Forces National Defense HQs Ottawa, Ontario, Canada	"Communications Plans for the Canadian Defence Forces"	12/6/66

ANTENNAS & PROPAGATION and
MICROWAVE THEORY & TECHNIQUES - Joint
Groups Chapters Meetings

<u>REGION 1</u>			
<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Syracuse	Prof. R. E. Hayes, Cornell University, Syracuse, N. Y. ; J. R. Knapp, Dr. T. A. Midford, and J. M. Tomlinson, General Electric Co. , Syracuse, N. Y.	Panel Discussion: "Present Day and Future Solid State Microwave Devices in Radar Systems"	12/8/66
<u>REGION 2</u>			
Baltimore	K. J. Button MIT National Magnet Lab. Cambridge, Mass.	"Advances in Submillimeter Instrumentation and the Use of Superconducting Magnets in Electromagnetic Systems"	1/11/67
	J. L. Levatich COMSAT Corporation 1835 K Street, N.W. Washington, D. C.	"Communications Satellites"	12/14/66
Philadelphia	Seymour B. Cohn RANTEC Corporation 24003 Ventura Blvd. Calabasas, Calif.	"Swept Frequency Testing"	12/14/66
	K. S. Kelley RANTEC Corp. Calabasas, Calif.	"Cassagrain Reflector Feeds and Flat Plate Arrays"	12/14/66

AUTOMATIC CONTROL - GROUP CHAPTERS MEETINGS

<u>REGION 2</u>			
<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Baltimore	Dr. John E. Gibson, Dean School of Engineering Oakland University Rochester, Mich.	"Future Trends in Automatic Control"	12/15/66
	Dr. Walter J. Culver Westinghouse Elec. Corp. Defense & Space Center Baltimore, Md.	Tutorial Lecture Series #1 and #2: "Stochastic Control"	12/1/66 12/8/66
<u>REGION 4</u>			
Chicago	Chun Hsu Argonne National Lab. Lamont, Illinois	"Control and Stability for Distributed Nuclear Reactor Systems"	12/13/66
Southeastern Mich.	Dr. A. J. Pennington University of Michigan Ann Arbor, Michigan	"Advances and Prospects in the Application of Control Computers to Power System Operation"	12/6/66

BROADCASTING - GROUP CHAPTER
MEETINGS

<u>REGION 2</u>			
<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Cleveland	D. O. Beuoy, Marketing J. H. Haren, Intercity Circuits R. D. Webner, Special Svcs. Ohio Bell Telephone Co. Cleveland, Ohio	"The Telephone Company and Your Broadcast Facilities"	12/8/66

COMMUNICATIONS TECHNOLOGY
GROUP CHAPTER MEETINGS

<u>REGION 3</u>			
<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Alabama	Donald Nettleman Southern Bell T. & T. Co. Birmingham, Alabama	"Maintenance Engineering Responsibilities"	1/9/67
New Orleans	J. D. Styers, Jr. Southern Bell T. & T. Co. Nashville, Tennessee	"Processing Telephone Calls Electronically"	12/15/66
<u>REGION 4</u>			
Chicago	R. P. Sanders Automatic Electric Co. Northlake, Illinois	"Trends in Digital Telemetry and Control"	12/6/66
<u>REGION 5</u>			
Dallas	Norman P. Gluth LTV Electrosystems, Inc. Garland, Texas	"A High Reliability Miniature Airborne Page Printer"	12/1/66

(Cont'd)

Communication Technology - Group Chapter Meetings (Continued)

Section	Speaker and Address	Title of Speech	Date Presented
Los Angeles Council	Adam Lender Lenkurt Electric Co. Palo Alto, California	"Correlative Techniques for Binary Data Transmission"	12/6/66
Sacramento	Sgt. Richard Dolmseth California Highway Patrol 2490 First Avenue Sacramento, Calif.	"California Highway Patrol's AUTO-STATIS Facility"	12/8/66
Seattle	Malcolm L. Campbell The Boeing Company Seattle, Washington	"Aircraft Communications by Satellite"	12/15/66

COMPUTER GROUP CHAPTER MEETINGS

Section	Speaker and Address	Title of Speech	Date Presented
Connecticut	Dr. J. Presper Eckert, V.P. UNIVAC Div., Sperry Rand P. O. Box 500 Blue Bell, Pa.	"Some Projections on Computer Systems and Hardware for the Next 5 to 15 Years"	12/1/66

Section	Speaker and Address	Title of Speech	Date Presented
Chicago	Richard P. Sanders Automatic Electric Labs. 400 N. Wolf Road Northlake, Illinois	"Trends in Digital Telemetry and Control"	12/6/66

Section	Speaker and Address	Title of Speech	Date Presented
Houston	Dr. David Wheeler The Computer Center The University of California Berkeley, California	"The Time Sharing System for The Computer Center, Berkeley"	12/15/66

ELECTROMAGNETIC COMPATIBILITY GROUP CHAPTER MEETINGS

Section	Speaker and Address	Title of Speech	Date Presented
Mohawk Valley	Donald R. J. White, Pres. White Electromagnetics, Inc. Rockville, Maryland	"Electromagnetic Compatibility - Its Definition, Problems and Future"	1/10/67
Philadelphia	G. J. Palladino American Electronic Labs., Inc. Colmar, Pennsylvania	"Design & Application of a Solid-State Impulse Generator"	12/7/66

ELECTRON DEVICES - GROUP CHAPTER MEETINGS

Section	Speaker and Address	Title of Speech	Date Presented
Syracuse	Dr. R. E. Hayes Cornell University Dr. T. A. Midford Dr. T. M. Tomlinson Mr. T. R. Knapp General Electric Co. Syracuse, N. Y.	Panel Discussion: "Present Day and Future Solid-State Microwave Devices in Radar Systems"	12/8/66

Section	Speaker and Address	Title of Speech	Date Presented
Albuquerque	Don A. Berlincourt Clevite Corp. 540 East 105 Street Cleveland, Ohio	"Piezoelectric Materials and Devices"	12/1/66

ENGINEERING MANAGEMENT - GROUP CHAPTER MEETINGS

Section	Speaker and Address	Title of Speech	Date Presented
New York	H. T. Marcy, V.P. IBM General Engineering 425 Park Avenue New York, N. Y.	"An Engineer's Metamorphosis Into an Executive"	12/8/66

Section	Speaker and Address	Title of Speech	Date Presented
New Orleans	Walter K. MacAdam American T. & T. Co. 195 Broadway New York, N. Y.	"Engineering Management Decision Making"	12/1/66

ENGINEERING IN MEDICINE & BIOLOGY GROUP CHAPTER MEETINGS

Section	Speaker and Address	Title of Speech	Date Presented
New York	Dr. Charles J. Campbell Ophthalmology Research Columbia Univ., College of Physicians & Surgeons New York, N. Y.	"Ocular Effects of Laser Radiation"	12/6/66

Section	Speaker and Address	Title of Speech	Date Presented
Chicago	W. H. Burns, M.D. Indiana University Medical School Indianapolis, Indiana	"A Totally Implantable Artificial Heart"	12/13/66

Section	Speaker and Address	Title of Speech	Date Presented
Los Angeles Council	Simon Rodbard, M.D. City of Hope Medical Center 1500 E. Duarte Road Duarte, California	"Hydrodynamic and Electronic Approaches to the Diagnosis of Heart Disease"	12/8/66

Section	Speaker and Address	Title of Speech	Date Presented
Seattle	Paul J. Stoll University of Washington E. E. Department Seattle, Washington	"Respiratory Response to Sinusoidal Variations of Inspired CO ₂ in Resting Man"	12/8/66

ENGINEERING WRITING AND SPEECH
GROUP CHAPTER MEETINGS

REGION 6

<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Los Angeles Council	Chapin Day IBM Systems Engineering Long Beach, California	"Data Graphics and Computer-Aided Design"	12/2/66

INDUSTRY & GENERAL APPLICATIONS
GROUP CHAPTER MEETINGS

REGION 2

Philadelphia	Henry J. DeMattia, and Ernest Powell Electronics-Electrical Design Naval Ship Systems Command Washington, D. C.	"Shipboard Electromagnetic Compatibility"	12/8/66
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REGION 5

Pittsburgh	C. G. Helmick Westinghouse Elec. Corp. Buffalo, New York	"Static Inverter Drives - Why, Where and When"	12/6/66
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REGION 5

Saint Louis	Frank E. Simo Eaton Yale Towne, Inc. Dynamatic Division 3122 Fourteenth Ave. Kenosha, Wisconsin	"Static D. C. Power Supplies and Eddy Current Variable Speed Drives and Their Applications"	1/9/67
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REGION 5

	Richard J. Rahoi Square D Co. 4041 N. Richards St. Milwaukee, Wisc. and Paul E. Lacke Square D Co. 1212 Pierce Street St. Louis, Mo.	"Solid State Switching Equipment and Circuits"	12/5/66
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INFORMATION THEORY - GROUP CHAPTER MEETINGS

REGION 1

New York	Dr. David Slepian Bell Telephone Labs. Murray Hill, N. J.	"Current Research on the Gaussian Channel"	12/9/66
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REGION 2

Philadelphia	Dr. A. K. Joshi University of Pa. Philadelphia, Pa.	"Some Aspects of Feedback in Communication"	12/5/66
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REGION 6

Los Angeles Council	Michael Horstein Hughes Aircraft Co. El Segundo, Calif.	"Recent Results in the Theory of Feedback Communications"	12/6/66
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MICROWAVE THEORY & TECHNIQUES
GROUP CHAPTER MEETINGS

REGION 1

<u>Section</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Date Presented</u>
Long Island	Dr. Robert M. Ryder Transistor & Diode Dev. Bell Telephone Labs. Murray Hill, N. J.	"Microwave Generation by Impact Avalanche Transit-Time Diodes"	12/6/66

POWER GROUP CHAPTER MEETINGS

REGION 1

Maine	Robert A. Nickless Keyes Fibre Co. Waterville, Maine	"A User Looks Out at Electric Utilities"	1/10/67
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REGION 2

Cincinnati	Adolph C. Neaderland Burdny Corp. Norwalk, Conn.	"Sodium Cable and Connector Applications"	1/17/67
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REGION 2

Lehigh Valley	John F. Clancy G. & W. Electric Specialty Co. 3500 W. 127 Street Blue Island, Ill.	"High Voltage Cable Terminations and Oil Switch Applications"	12/9/66
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REGION 2

Philadelphia	J. H. Simpson G. E. Company Philadelphia, Pa.	"Vacuum Interruptors - Their Performance, Manufacture and Application"	12/6/66
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REGION 3

Chattanooga	R. F. Jones Charles W. Ashby Co. Birmingham, Alabama	"A Survey of Load Break Devices"	1/10/67
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REGION 3

Florida West Coast	J. C. Huffer Florida Power Corp. St. Petersburg, Fla.	"Fundamentals of System Operation"	1/4/67
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REGION 3

Miami	F. C. Van Wormer General Electric Co. Schenectady, N. Y.	"New Trends in URD"	12/1/66
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REGION 4

Chicago	Robert E. Heltman G. E. Co., Applications Div. 840 South Canal Street Chicago, Illinois	"The Role of Electric Power in Future Mass Transportation Systems"	12/13/66
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REGION 4

Milwaukee	Sol Burstein, and Glenn A. Reed Wisconsin Electric Power Co. Milwaukee, Wisconsin	"Point Beach Nuclear Plant"	12/1/66
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REGION 4

Southeastern Mich.	Dr. A. J. Pennington Detroit Edison Co. 2000 Second Ave. Detroit, Michigan	"Advances and Prospects in the Application of Control Computers to Power System Operation"	12/6/66
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REGION 5

Section	Speaker and Address	Title of Speech	Date Presented
Central Texas	R. L. Hancock Dept. of Distribution City of Austin, Austin, Texas	"Lightning Arrester Theory and Application"	12/8/66
	R. D. Alexander City Public Service Board San Antonio, Texas	"Lightning Arrester Testing"	12/8/66
Houston	Thaddeus E. Brown Dow Chemical Co. Freeport, Texas	"Basic Overcurrent Relaying and Coordination of Protective Devices"	1/11/67

REGION 6

Phoenix	Lester S. Ormsby Arizona Power Authority 1810 West Adams Phoenix, Arizona	"Pumped Storage - Montezuma Project"	12/8/66
Portland	W. D. Smith; J. N. Lee W. L. Carey Portland G. E. Co. 621 S. W. Alder St. Portland, Oregon	Panel Discussion: "Planning Substations"	12/14/66
Sacramento	William Walbridge Sacramento Municipal Utility Dist. 6201 S Street Sacramento, Calif.	"Problems in Developing a Nuclear Power Plant"	12/15/66

REGION 7

Vancouver	D. R. McArdle B. C. Hydro & Power Authority 970 Burrard St. Vancouver, B. C.	"Communications and Control Facilities for the Vancouver Island D. C. Transmission System"	12/5/66
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RELIABILITY GROUP CHAPTER MEETINGS

REGION 6

San Diego	Richard Winters Dickson Electronics Corp. Scottsdale, Arizona	"TX - the Answers to the Reliability Dilemma"	12/12/66
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GUIDELINES CONCERNING THE HOSTING OF VISITORS FROM OUTSIDE THE UNITED STATES

Visits of U. S. citizens to other countries and of citizens of other countries to the United States constitute an important element in IEEE relations between the two countries. They can contribute significantly to the increase in scientific and technological understanding that we seek. In situations where the Chairman of an IEEE-sponsored meeting extends invitations to citizens of other countries to participate in the meeting, he is authorized to establish a committee specifically charged with the responsibility of acting as Host to these visitors. Included in this authorization is approval for the expenditure of funds to accomplish this end. A specific conference budget item should therefore be established when planning the meeting. When the IEEE meeting is conducted in a country other than the United States, problems relative to invited visits may be somewhat different. The following practices suggested for the U. S., however, can serve as appropriate guidelines for practices that may be developed in that country.

In the case of Soviet and Eastern European visitors, the role of the American Host (sponsor) is central to the success of the visit and its contribution to the objectives of the special exchange program, now being carried on by the IEEE within the framework of the formal exchange program in effect between these countries and the United States. The ISRC Subcommittee on Cultural and Scientific Exchanges between the United States and the Soviet Union and Eastern European Nations has been established to ensure that such exchanges are properly carried out and should be called upon for advice about proper procedures to follow in making suitable arrangements. The secretary of this Subcommittee is responsible for maintaining current awareness of activities in this area.

If he is to fulfill his role, the Host must be prepared to assume a number of responsibilities in cooperation with the cognizant IEEE committees and Institute staff and with the departments of the U. S. Government that are engaged in operating the exchange program or are affected by it.

The Host is expected to do the following:

- A. Invitees from countries other than the Soviet and Eastern European Nations
Consider such factors as: previous history of invited visits by citizens of that country; their proposed itinerary; local facilities available for entertaining them; providing suitable interpreters; etc., in arriving at an overall plan to make the visit as mutually satisfactory as possible. The IEEE International Convention Reception Committee may be able to offer advice and help.
- B. Invitees from Soviet and Eastern European Nations to the United States
 1. Consider the responsibilities outlined in "A" above.
 2. In order to facilitate the issuance of a visa, communicate with the secretary of the ISRC Subcommittee on Cultural and Scientific Exchanges between the United States and the Soviet Union and Eastern European Nations as early as possible and provide the full name, address, and, if available, the date and place of birth of the prospective visitor. The secretary, in turn, will then communicate this information to the U. S. Department of State, which will set in motion the machinery for consideration of the visitor as a special case under the provisions

of the McCarran Act. *

3. Arrange in advance with the ISRC Subcommittee on Cultural and Scientific Exchanges between the United States and the Soviet Union and Eastern European Nations and the U. S. Department of State the itinerary that the visitor will follow in the United States. Every effort should be made to include in his itinerary as many visits of interest as the Host resources and the U. S. Government restrictions allow.
4. Arrange for the visitor to be met at the port of entry into the United States (usually New York), and assist him during his visit in this country, and see him off upon departure. This activity should be accomplished with graciousness and hospitality -- not with the attitude of policing the visitor.
5. Engage the services of an American travel agency, if necessary, to assist in arranging transportation, hotel and any necessary interpreter facilities for the visitor. If such an arrangement is made with the travel agency, the sponsor should make sure that the travel agency is aware of these responsibilities.
6. Insure that the visitor follows the agreed itinerary and does not deviate from it without prior consultation between the Host and the U. S. Department of State. When any deviations are requested by the visitor, the Host should try his best to secure permission for such deviations, provided they conform with the spirit of the exchange and do not violate security regulations.
7. Consult with the ISRC Subcommittee on Cultural and Scientific Exchanges between the United States and the Soviet Union and Eastern European Nations and the U. S. Department of State before making any changes in the itinerary, including additional professional visits, new routing, new scheduling, or requests for extensions of authorized stay in the United States.
8. Write to the U. S. Department of State, copy to the secretary of the ISRC Subcommittee on Cultural and Scientific Exchanges between the United States and the Soviet Union and Eastern European Nations, to confirm the departure of the visitor and to describe any special problems that may have arisen.

It is IEEE policy to make the stay of all invited visitors as enjoyable and rewarding as possible. In no instance should the IEEE impose limitations on length of visits or freedom of access and mobility beyond those imposed by U. S. Government regulations. The Host is expected to exercise good judgment in applying the principles set forth in the foregoing.

* It should be noted that, under the provisions of the Immigration and Nationality Act of 1954, specific approval of the Attorney General of the United States is required for the entrance into the U. S. of any individual who has received a visa by virtue of waiver of the regular provisions of this act and that a formal report on each such exception must be made to the Congress of the United States.

NOMINATIONS FOR INSTITUTE AWARDS. It is desirable that all Group and Section chairmen participate. There are members in Sections and Groups who may be qualified and deserving candidates for honors, but their nominations depend upon the preparation of specific Award forms. Sections and Groups should appoint committees to survey their memberships for qualified candidates and to originate nominations before deadlines (some as early as April 1, 1967). Candidates' qualifications must be matched against specifications (see Spectrum, Nov. '66, pp. 12, 13), and the appropriate form be requested by naming the Award. (Information, brochure, forms, Miss Una Lennon)

TOP-SIDE AND OTHER DEVELOPMENTS

NEW ADMINISTRATION AND BOARD OF DIRECTORS. The annual Assembly, composed of 18 elected Directors (see E. E. No. 8, p. 2, box) met January 4, '67, and added 9 appointed Directors to make up 1967 BofD of 27. Among the 27 the Assembly named two appointed-Vice Presidents, the Secretary, Treasurer, and Directors of Regions 9 and 10. The BofD then met and named its Executive Committee (ExCom) and, except for the President, assigned its members as Coordinators of various Standing Committees and BofD functions. (See box, p. 2, for particulars; compare with box in E. E. No. 8 for changes; see Bylaws 201-203, 301-303, edition of Nov. 3, '66, for authority.) A press release gave for most Directors their company or college affiliations, titles, addresses for mail. (Copies, J. M. Kinn)

E. E. editor's impressions: From the press release, the depth of most Directors' technical involvement in addition to their broad executive attainments. From study of the 1966 and 1967 BofDs and Bylaws, respect for IEEE's democratic process: note that all 18 members of the 1967 Assembly were elected (none appointed), 8 of them within the past 6 months, 6 more serving initially during 1966, and only 4 serving terms as far back as 1965.

1967 BOFD AND EXCOM MEETING SCHEDULES. Barring changes and extras, BofD will meet: Mar. 24 at UEC; Aug. 22 (WESCON) Fairmount, San Francisco; Nov. 2 (NEREM) Boston-Sheraton, Boston. ExCom will meet: Feb. 14, UEC; Mar. 18, New York-Hilton; Apr. 20-21 (SWIEEEO) Baker, Dallas; May 31-June 1, Queen Elizabeth, Montreal; June 28, UEC; Aug. 21 (WESCON) Fairmount, San Francisco; Sept. 20, UEC; Nov. 1 (NEREM) Boston-Sheraton, Boston; Dec. 12, UEC. The 1968 annual Assembly meets Jan. 4, 1968.

CREDITS FOR SECTION MAINTENANCE INCREASED. At its first meeting of 1967, BofD changed Bylaw 402.10 with the following effects: increased basic Section Allowance to \$200 from \$100. . . increased to \$15 from \$10 the per-meeting allowances for Sections, Subsections, and Group Chapters within the provisos of Bylaw 402.10 c and d. . . provided for each and every Group Chapter membership held by a Section member as of Dec. 31 each year an allowance to the Section at the rate of 25¢ per Group Chapter member.

"SECOND" IEEE GENERAL MEETING. In addition to the March Convention, Bylaw 602 contemplated, "preferably in the summer," an annual general meeting of IEEE "primarily devoted to organizational matters." For the information of interested Units, ExCom has recommended the deletion of this Bylaw at BofD's March 24, 1967 meeting.

STATEMENTS OF POLICY. Last codified in a blue, 16-page document in June 1966, these

statements, prepared by ExCom and accepted by BofD, have the same force as Bylaws and are incorporated identically in the Section and TAB Manuals. Changes and additions have been reported in E. E. Nos. 7 & 8. A re-issue is due shortly. (Copies, R. M. Emberson)

SECTION RESERVE FUNDS. As anticipated in E. E. No. 8, p. 3, ExCom in Dec. '66, upon recommendation of the IEEE Finance Committee, approved upon a permissive basis, the investment of Sections' reserve funds in the IEEE investment portfolio maintained at headquarters. (Particulars, W. J. Keyes)

CONTRIBUTION TO CHAMBER OF COMMERCE CITY-BOOSTER CAMPAIGN. ExCom rejected, as an inappropriate activity of an IEEE unit, a Section's request for permission to contribute \$50. "Services should be paid for," ExCom ruled, "but not in this manner." (In parallel questionable situations, consult General Manager Fink.)

OTHER SECTION ACTIVITIES RULED INAPPROPRIATE. On advice of legal counsel, ExCom in Dec. '66 stated policy to be "that IEEE shall not participate in Credit Unions or in Book Services (i. e., a service through which members might order books from a Section). Policies apply to all Units.

CHALLENGES AND OPPORTUNITIES

DATE-LINE: WHITE HOUSE, JAN. 4. "The engineer will . . . rebuild a new and far better urban America. And more than ever, the quality of his contribution will depend not only upon his technical abilities. It will be measured as well by his sensitivity to the people's needs. Engineering for the human environment . . . is the very essence of the challenge that lies before us." — Lyndon B. Johnson

CONTINUING EDUCATION. Did the capsule-like "Four Ages of the Engineer" by Purdue's dean of engineering click, in relation to the activities of your Unit? Re-read it, introspectively, in the copy of "Engineer" mailed you in January, p. 15. Then name some IEEE Groups, Sections, publications, which seem to be catering to one or more of the first 3 ages. How about your Unit? All 3? Can IEEE give direction to, if not instruction about, the 4th age? (Copies, "EJC Engineer," 345 East 47th St., New York, N. Y. 10017 USA)

EDUCATIONAL INNOVATIONS AT CONVENTION. Student Branch Counselors will participate in a panel clinic on Branch activities, and will attend Directors' Reception:

Open to all is an inter-Group Educational Seminar, initiated by IEEE Education Committee. Three Groups—Computers, Reliability, and Industrial Electronics & Control Instrumentation—will present survey papers concentrating on impact points of these areas on engineering as a whole. What could such papers do for your Section or Chapter meetings? What Groups for your purposes?

SPEAKER'S DIRECTORY. 68 Sections furnished questionnaire information about recent good speakers. Collated and mailed all Sections Nov. 30. Effective with this issue of E. E. (see canary-yellow Supplement), additional listings will be compiled. Consolidated in your file they become the Speaker's Directory. BofD looks upon this as a distinct aid to Unit chairmen and meetings committees in preparing technical

programs. All are urged to make comments on the usefulness of this information. Additional copies are available. (Miss Emily Sirjane)

Two-thirds of the Groups' newsletters carry comparable lists useful to Chapters in their specialties. In Sections having Chapters, interplay of these lists will benefit both and offer splendid possibilities.

STANDARDS WORK WITHIN GROUPS. The old TC(S) (Technical Committee - Standards) no longer exists as such. The aspects of its successor-Units will vary from Group to Group depending upon the amount of standardization work being done. Typically it may be called a Standards Committee or Subcommittee, either of the Group or of a Group Technical Committee. A designated officer will regularly receive the Minutes of the IEEE Standards Committee and ought to represent the Group at its meetings.

IDEA NO. 1,234

DISCUSSION PAPERS. When an author who is a member of a Chapter or Section "makes" IEEE Proceedings, Spectrum, Transactions, Convention Record, or other publication, he is ripe for re-billing of his paper for Section or Chapter Discussion. If his article will appeal locally, book him while he is in a state of euphoria; bill him as a half-hour's Added Attraction; tout him for the worldwide coverage already accorded his paper by his reviewer-peers. Cite page numbers; make scanning of his paper a pre-requisite; give him 8-10 minutes to sum it up and 20-22 minutes to defend it and answer questions. If he chooses to form a small panel of associates and competitors, so much the better! Discussion's the objective: seed some.

IDEAS NOS. 1,235, 1,236, ETC. Who will submit them to the Editor for briefing? E. E. will print, with credit to the Unit, such items to inspire other Units. What we've done, how we did it, why don't we try this? Make your Units famous! We have what Dr. A. N. Goldsmith aptly calls "transnational" coverage—E. E. goes everywhere.)

TOOLS AND AIDS

ORGANIZATIONAL ROSTER. New January 1967 issue, reflecting Jan. 1 personnel and Unit changes, is being mailed within a few days. Hereafter scheduled for January and September each year. (Copies, Miss Emily Sirjane)

IEEE AND JOINT CONFERENCES. Quarterly schedule of conferences was mailed in January. In greater detail than "Calendar" appearing monthly in Spectrum, and projected farther into future. Listings are made only after approval of ExCom. To avoid conflicts, and to make personal contacts on exhibits, publicity, programs, and publications, a must for those planning other-than-local meetings. (Copies, E. D. MacDonald)

HOSTING VISITORS FROM ABROAD. Under this title, E. E. Dec. '66 offered, on request, "Guidelines" prepared by Intersociety Relations Committee's subcommittee on cultural and scientific exchanges. ExCom feels that the instruction should be widely circulated in its entirety. Herewith, as an E. E. Supplement (green). (Extra copies, J. M. Kinn)

AUTHOR'S GUIDE TO IEEE PUBLICATIONS. January '67 Spectrum, pp. 15-16, carried first annual summary of IEEE general and Group printed periodicals: name, frequency, scope, purpose, publishing Unit, editor's name, address. Unique for ready reference. Save. Copies not available.

WHO GETS "ELECTRICAL ENGINEERING?" Section chairmen (4 copies, to facilitate action by margin references), vice-chairmen, secretaries, treasurers, offices, editors; Subsection chairmen, secretaries; Chapter chairmen; Group administrative committees, newsletter and Transactions editors; members, all Standing Committees; IEEE Counselors; representatives to outside organizations; IEEE Directors; staff secretaries, managers, department supervisors; advertising office; counselors-at-law. Save time—refer your correspondent to E. E.

"FOR YOUR INFORMATION"

PRESIDENT'S GOOD-WILL TRIP TO SOUTH AMERICA. See Mr. MacAdam's personal account in Spectrum, Jan. '67, p. 49, of his visit as Sections coordinator, 1966 ExCom, and President-elect.

MERGER COMPLETED IN FOUR YEARS. With the amalgamation of the last remaining Technical Committees (Standards)—TC(S)s—into Group structures, in accordance with an ExCom 1966 general directive, the merging of former AIEE and IRE entities into Units of IEEE has been finalized. With goodwill and accommodation all around, the estimated 5-year task was "90%" finished in 3 years. (Read W. G. Shepherd: IEEE Spectrum, June '66, p. 100.)

EFFECT OF DUES INCREASE UPON MEMBERSHIP. The 1966 BofD had to accept the risk of losing members in the process of raising dues and increasing services. Mid-January '67 figures show "Situation well in hand."

The number of dues payments received up to mid-January 1967 has been much greater than in the same period a year ago, and payments are in proportion to the larger number of invoices mailed this year. Meanwhile, IEEE total membership, even at a higher dues level, had soared to an all-time high. Comparative year-end figures: 1964, 153,978; 1965, 154,198; 1966, 160,070.

It should be understood that factors other than dues also operated to produce, both for resignations and total membership, these merely indicative, but reassuring, figures.

Incidentally, the staff is very much pleased with the response to the new "composite bill." It's rare that people when paying an invoice, take time to write such plaudits as "real professional job."

FINANCIAL SUPPORT OF GROUP AND SECTION ACTIVITIES. In 1966, revised fiscal control procedures made it possible for the first time to identify the total support going to IEEE Unit activities. Help to Sections, for example, far exceeded the monies turned over to them as dues rebates and meetings allowances. Help to Groups, in the form of cash support of printing costs, was revealed as being only a fraction of the total support of Group activities. The 1967 budgets have been, and future budgets will be, adjusted accordingly to take into account all elements of total support.

RECIPIENTS OF IEEE AWARDS. BofD approved the major awards and papers prizes; a press release January 12, '67 named recipients, organization connections, citations, and place of presentation (1967 Convention banquet and Directors' reception). (Biographies, copies of press release, J. M. Kinn)

Biographies of winners of IEEE's seven field awards appeared in Spectrum: June '66, p. 12; Oct. '66, pp. 20,24; and Jan. '67, pp. 18-20.

"EXPO 67" MONTREAL. Dates, April 28 - October 27. (Closes after National Electronics Conference, October 23-25.) IEEE Canadian Region (7) will co-sponsor the Congress of Canadian Engineers' meeting there May 29 - June 2. IEEE ExCom will hold a special meeting at Queen Elizabeth Hotel, May 31 - June 1. No technical conferences appear now to be scheduled for Montreal during Expo 67; but URSI-IEEE joint Canada-USA meeting is to be held in Ottawa May 23-26; and the Toronto Section and Canadian Region sponsor the International Electronics Conference and Exposition of the Canadian Region at Toronto September 25-27. E. E. will run any notices received of Units which intend to meet in Montreal during Expo 67. (Address editor)

Note: On account of IEEE's blazing spectrum of conferences, E. E. cannot single any one out for special mention. The "red-carpet treatment" has to be reserved for World's Fairs and IEEE's own International Convention. Sorry. See Spectrum, monthly: "News of the IEEE."

EDITORIAL

Every time a Group holds a joint session or a joint conference with another Group, or pays it the compliment of publicizing papers of joint interest, the two Groups assert their intent to hurdle false barriers erected by too-exclusive rendering of their respective TAB-approved "areas of interest." Re-read Deming Lewis's "Communications—concept and reality," in November 1966 Spectrum, pp. 82-84, and see whether you don't draw this conclusion: that IEEE, if it be so minded, and entirely consonant with its Group structure, need not be plagued with the intellectual provincialism which, for the good reasons which Lewis cites, divides a typical academic community into "islands of scholarship." — I. S. C.

PUBLICATIONS COORDINATION. ExCom Dec. 15, '66 took following actions: Approved IEEE's becoming an associated society with "Science Abstracts," published in London by The Institution of Electrical Engineers, with representation on the advisory board of Science Abstracts; approved air mail transmittal of page proofs of IEEE articles to speed up abstracting, indexing, in London, in exchange for preferential subscription prices for Section B (electrical engineering) and Section C (control). . . Authorized IEEE representatives to discuss recommendations for the establishment and operation of a United Engineering Information System (UEIS), the recommendations having been made by a tripartite committee of Engineering Index, Engineers Joint Council, and United Engineering Trustees.

WELCOME ABOARD!

"Freshmen" on the Board of Directors.

Incoming officers of Units, wherever you are.

Staff: Dr. Howard E. Tompkins (SM), presently Head, Department of Electrical Engineering, University of Maryland; to fill new post of Staff Director - Information Services, effective July 1, 1967; until then, consultant part-time (see E. E. No. 8, p. 5). In addition to staff and other-Society contacts he will work with Transactions editors in developing titles of papers, abstracts, citations, useful in retrieval of documents. (Biography, J. M. Kinn)

Dr. Leon Podolsky (F), joining the General Manager's staff on a part-time basis, primarily in support of Technical Activities Board operations. He has been Technical Assistant to the President, Sprague Electric Company. (Biography, J. M. Kinn)

New Group Chapters in Sections:

<u>Section</u>	<u>Chapter</u>
Affiliation of N. Carolina Sections	Joint: Antennas & Propagation Microwave Theory & Techniques
Atlanta	Communication Technology
Beaumont	Power
Beaumont	Industrial Electronics & Control Instrumentation
Dayton	Aerospace & Electronic Systems
Joint: * Fort Huachuca Tucson	Aerospace & Electronic Systems
Los Angeles	Systems Science & Cybernetics
Joint: New York - Long Island Northern New Jersey	Reliability
Spokane	Power
Tokyo	Computer
Toledo	Power
Twin Cities	Reliability

* Phoenix withdrawing