

Summer General Meeting

June 19-24, 1960

ATLANTIC CITY, N. J.

Headquarters
Hotel Chalfonte-Haddon Hall



SCHEDULE OF EVENTS

June 19—SUNDAY

Registration Begins—2:30 P.M.
Informal Tea—4:00 to 6:00 P.M.

June 20—MONDAY

Ladies' Coffee Hour—9:00 A.M.
Technical Sessions—10:00 A.M.
Ladies' Tour to Fischer Greenhouses
or Renault Winery—1:00 P.M.
Annual Meeting—2:00 P.M.
Cabaret Dance—9:00 P.M.

June 21—TUESDAY

Technical Sessions—9:00 A.M.
Ladies' Coffee Hour—9:00 A.M.
Ladies' Auxiliary Meeting—10:30 A.M.
Ladies' Hawaiian Luncheon—1:00 P.M.
Sage Direction Center Trip—2:00 P.M.
Technical Sessions—2:00 P.M.
Card Party—8:00 P.M.

June 22—WEDNESDAY

Technical Sessions—9:00 A.M.
Ladies' Breakfast—10:00 A.M.
Technical Sessions—2:00 P.M.
Federal Aviation Agency Trip—
2:00 P.M.
Dinner and Show—5:30 P.M.

June 23—THURSDAY

Ladies' Coffee Hour—9:00 A.M.
Technical Sessions—9:00 A.M.
Ladies' Tour of Haddon Hall Kitchens
—10:30 A.M.
Technical Sessions—2:00 P.M.
Forum of Technical Committee Chair-
men—7:30 P.M.
Moonlight Cruise—9:00 P.M.

June 24—FRIDAY

Technical Sessions—9:00 A.M.
Ladies' Coffee Hour—9:00 A.M.
Technical Sessions—2:00 P.M.
Eddystone Station Trip—9:00 A.M.—
All day



Chalfonte-Haddon Hall Hotel, Atlantic City, New Jersey

Central Studios

There awaits a full week of social and technical activities for those who attend the Summer General Meeting this year at Atlantic City, one of the nation's foremost seaside resorts. Our guests can be sure of a most enjoyable and well spent week.

The program for the week will open on Sunday afternoon with an informal tea to be held in the Garden Room between 4 and 6 P.M. for the members of A.I.E.E. and their families.

The Annual Meeting will be held on Monday afternoon in the Vernon Room of the Chalfonte-Haddon Hall Hotel where the election of officers will be announced.

The presentation of the Lamme Medal will be made to Dr. Lee Alton Kilgore of East Pittsburgh-Pennsylvania. The medal is being presented to Dr. Kilgore for meritorious achievements in the design of electrical machinery; more specifically, for analyses of synchronous machine reactances, for "inventions of special armature windings, and for inventions and designs related to large, adjustable speed, alternating current motors."

Also Mr. Elgin B. Robertson will be awarded Honorary Membership in the American Institute of Electrical Engineers.

The technical program features sessions sponsored by most of the committees in the six technical divisions. Numbered among these are sessions on Power Generation, Electrical Insulation, Feedback Control Systems, and Telegraph Systems on Monday morning.

Tuesday sessions are scheduled on Transmission and Distribution, Insulated Conductors, Magnetic Amplifiers, Nucleonics, Feedback Control Systems, Indicating and Integrating Instruments, Recording and Controlling Instrumentation, Data Communications and Broadcasting. The Section Delegates Conference is also scheduled for the full day.

On Wednesday the committees are scheduling sessions on Transmission and Distribution, Transformers, Switchgear, Solid State Devices, Basic Sciences, Chemical Industry, Communication Switching Systems, Land Transportation and Special Instruments and Auxiliary Apparatus.

Thursday, System Engineering, Land Transportation, Transmission and Distribution, Substations, Computing Devices, Chemical Industry, New Activities and Research, Rotating Machinery, Radio Communication Systems, and Wire Communication Systems sessions are scheduled.

Friday the meeting will close with sessions on System Engineering, Power System Communications, Rotating Machinery, Computing Devices and Semiconductor Metallic Rectifiers, and Industrial and Commercial Power Systems.

INSPECTION TRIPS

Tuesday afternoon, June 21—Sage Direction Center, McGuire Air Force Base, New Jersey. This visit, to one of the Country's vital air defense centers, will be limited to thirty (30) persons.

As security clearance must be obtained for this trip, members desiring to make the trip should

write to Mr. T. H. Story c/o Radio Corporation of America, Building 1-3, Camden 2, New Jersey, giving the following information:—

- Full Name and Address
- Name of Employer
- Degree of Clearance held, if any.

This information must be in Mr. Story's hands before June 7, 1960 so that the necessary clearances may be obtained. As the trip is limited to thirty persons, reservations will be made in the order of receipt of the above information.

Wednesday afternoon, June 22—Federal Aviation Agency, Bureau of Research and Development, National Aviation Facilities Experimental Center, Atlantic City, New Jersey. (Ladies Invited)

Members making this trip will have an opportunity to see the vast amount of experimental work being done to improve the safety of the Federal Airways. There will be the prototype of a semi-automatic air traffic control data processing and display system and other electronic devices being tested for future use on the Federal Airways.

Friday All Day, June 24—Eddystone Station, Philadelphia Electric Company, Philadelphia, Penna. (Ladies Invited)

Eddystone electric generating station, in operation since early 1960, is a significant milestone in the growth of the Philadelphia Electric Co. The advance to steam conditions in the supercritical region, with pressures and temperatures higher than previously used in the industry, together with capacities among the highest, and many other new mechanical and electrical features combine to make it Philadelphia Electric Company's most striking technological development. The No. 1 unit on which so much pioneering has been done is designed for main steam conditions of 5000 pounds per square inch gage (psig) and 1200°F and two reheats to 1050°F. The No. 2 unit which is more conventional, is designed for 3500 psig and 1050°F main steam and two reheats to 1050°F. Both units have name plate ratings of 325,000 kilowatts. Combined they represent about 20 percent of the total system capacity of the Philadelphia Electric Company.

LADIES' ENTERTAINMENT

The Ladies' Committee under the direction of Mrs. Cullen Pearce has arranged a complete program of activities for the ladies which will be most enjoyable and entertaining.

On Sunday afternoon an informal tea will be held between 4 and 6 in the Garden Room for A.I.E.E. members and their families.

The Ladies' Headquarters will be located on the Sun Porch on the Lounge floor of Haddon Hall. Tickets for all events may be obtained in the Lobby.

Cards and new pool will be available to guests.

Boat trips available to those interested.

Special activities for teen agers—coke parties, bicycling, and splash parties.

Monday, June 20—Coffee Hour, 9 to 10:30 A.M. Sun Porch—the place to meet and form groups to walk on Boardwalk and plan other activities.

Ladies will have a choice of the following two tours: Fischer Greenhouses or a trip to the Renault Winery. Buses start leaving at 1 P.M. Tour will be followed by Tea at the charming 18th Century, Smithville Inn.

Cabaret Dance, 9 P.M. to 1 A.M., Vernon Room.

Tuesday, June 21—Coffee Hour, 9 to 10:30 A.M. Sun Porch. Auxiliary Meeting, 10:30 A.M. to 12 Noon. All members are invited. An authentic Hawaiian Luncheon at 1 P.M. in the Vernon Room. Card Party, 8 P.M. Rutland Room.

Wednesday, June 22—Breakfast on the Sun Deck and a showing of what's new in bathing suits and patio clothes. 10 A.M.

Special Dinner and Entertainment. Dutch Treat Cocktail Hour, 5:30 P.M. Dinner, 6:45 P.M. Carolina Room.

Thursday, June 23—Coffee Hour, 9 to 10:30 A.M. Sun Porch. Tour through Haddon Hall kitchens will start at 10:30 A.M. from Ladies' Headquarters on the Sun Porch.

Friday, June 24—Coffee Hour, 9 to 10:30 A.M. Sun Porch.

HOTEL RESERVATIONS

The Summer General Meeting, while it has its serious technical side, is also opportunity for one of the finest vacations possible. At Atlantic City, one of the country's foremost vacation spots, there promises a wonderful time for all who come from far and near.

The beautiful Chalfonte-Haddon Hall Hotel is especially suited,



Official USAF Photo

SAGE Direction Center, McGuire Air Force Base

with over 1000 rooms, for not only meeting activities, but also as a home for those in attendance. This hotel will act as housing bureau for the convention.

A list of hotels and motels available is given below.

All requests for room reservations for all hotels and motels listed should be sent to Chalfonte-Haddon Hall.

Hotel and Motel Rates (Be sure and request a selection of rates as this will aid in making your assignment in your designated hotel.)

Chalfonte-Haddon Hall (Headquarters)

European Plan	Haddon Hall		Chalfonte (across street)	
	Single One Person	Double Two Persons	Single One Person	Double Two Persons
Without view \$8.50, 9.50	11.50, 13, 14	\$13, 15, 16	\$7, 8, 10	\$10, 12
Side view	\$16, 18, 20	\$18, 20, 22	\$13, 16	\$15, 18
Ocean Front		\$24, 26		\$18, 20, 22
Double & Parlor side		\$40		42
Double & Parlor Ocean Front		\$50		

Each additional person in double room \$4.00 European plan. (\$12.00 American Plan.) American Plan \$8.00 per day per person. Rebate given when American Plan guest misses regular hotel meal to attend Convention meal functions in Chalfonte-Haddon Hall. All persons in same room must be on same plan.

Aristocrat Motel (Pennsylvania Avenue)

Double \$12, 14, 16, 18

Carolina Crest Motel (North Carolina Ave.)

Double \$12, 14

Colton Manor Hotel (Pennsylvania Ave.)

Double (twin beds) \$10, 12, 14, 16, 18

Two rooms one bath, 3 persons \$15

Two rooms one bath, 4 persons \$18

Sahara Motel (Pennsylvania Avenue)

Double \$16, 18, 20, 22

Continued on page 8

ADVANCE COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 50¢ each (\$1.00 each to nonmembers), by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Coupon books in \$10 denominations are available to those who wish to avoid remittance, by check or otherwise. The Transaction Papers will also be published in the bimonthly publications.

Note: Unnumbered Conference Papers (CP.*) may be available at or after the meeting, if copies are provided by the author. They are not intended for publication in the Transactions and are not presently scheduled for reproduction in any form by the Institute.

Note: The TRANSACTIONS papers will be printed in the bimonthly publications as follows:

- I COMMUNICATION AND ELECTRONICS.
- II APPLICATIONS AND INDUSTRY.
- III POWER APPARATUS AND SYSTEMS.

Monday, June 20

10:00 a.m.—Round Table Discussion on Data Handling and Computer Application Inside Power Plants

CP.* Automatic Data Processing in Palo Seco Steam Plant Puerto Rico Water Resources Authority. R. R. Ramirez, M. Iriarte, Puerto Rico Water Resources Authority; R. R. Tressler, Jackson & Moreland, Inc.

CP.* Data Handling and Computer Equipment for Power Stations. G. Barney, Stone & Webster Engineering Corp.

CP.* One Approach to Data Handling, Reduction and Analysis in Power Plant Practice. S. A. Lyon, New York State Electric & Gas Corp.

CP.* Application of Data Logging Equipment to Power Plants. E. G. Norell, Sargent & Lundy.

CP.* Data Handling and Computer Applications for Power Plants.

10:00 a.m.—Electrical Insulation

60-857. Electrical Tracking Resistance of Polymers. G. M. L. Sommerman, Westinghouse Electric Corp.

60-858. Insulation System for Naval Shipboard Motors Intermittently Submersed. C. B. Hackney, Allis-Chalmers Mfg. Co.; H. P. Walker, U.S. Navy Bureau of Ships (Re-presented for Discussion only)

10:00 a.m.—Nonlinear Systems and Components

60-862. Nonlinear Servomechanism of Limited Dynamic Range. II R. L. Moruzzi, Worcester Polytechnic Inst.; F. B. Tuteur, Yale University

60-863. Analyzing the Transient Response of a Nonlinear Servo-system by the Phase Plane Method. W. A. Stein (Deceased, Formerly with U.S. Naval Postgraduate School); Presented by G. J. Thaler, U.S. Naval Postgraduate School.

60-865. A Transformation Method for the Study of Non-linear Components and its Application in Control Systems. C. Lakshmi-Bai, Indian Inst. of Science.

CP60-864. Application of Silicon Controlled Rectifiers in a Transistorized High Response D-C Servo System, C. Cantor, U.S. Naval Weapons Plant.

60-111. On a Systematic Approximation to the Partition Method for Analysis of a Class of Nonlinear Systems. Y. H. Ku, J. H. Dietz, University of Pennsylvania; A. A. Wolf, Stromberg-Carlson Co. (Re-presented for Discussion only)

10:00 a.m. Telegraph Systems

CP60-786. The 83B2 Teletypewriter Selective Calling Systems, C. J. Votaw, A. L. Whitman, Bell Telephone Labs., Inc.

60-861. Teletypewriter Selective Calling Applied to Automatic Airlines Reservations. R. W. Bratschi, Remington Rand UNIVAC; W. D. Pennington, American Tel. & Tel. Co.; A. L. Whitman, Bell Telephone Labs., Inc.

60-770. An Electronic Teleprinter Distributor. N. N. Biswas, H. I. Rakshit; University of Wisconsin.

60-789. High Voltage Static Eliminators for Teletypewriters. L. A. I. Jonas, Bell Telephone Labs., Inc.; F. E. Hanscom, The Portland Co.

2:00 p.m.—Annual Meeting

1. Report of the Treasurer, C. H. Linder.
2. Report of the President and the Board of Directors, J. H. Foote.
3. Report of the Committee of Tellers on the vote for the Constitutional Amendments and the nominees for AIEE Officers.
4. a) Introduction of and presentation of President's Badge to C. H. Linder.
b) Response by Mr. Linder.
5. Presentation of the Lamme Medal to L. A. Kilgore.
6. Presentation of an Honorary Membership Certificate to Elgin B. Robertson.
7. Other Business.

Tuesday, June 21

9:00 a.m.—Switching Surges and Insulators

CP60-829. 115 KV Bus Switching Surges. L. C. Weber, Northern States Power Co; L. C. Elliott, H. M. Smith, Westinghouse Electric Corp.

60-831. Effect of Rainfall Resistivity on Sixty-Cycle Wet Flash-over of Suspension Insulators. R. J. Mather, M. G. Poland; Bonneville Power Administration.

CP.* A Proposal for a Realistic Wet Test. H. R. Armstrong, The Detroit Edison Co.

CP.* Numerical Factors Influencing Transformer Over-Voltages Caused by Chopping of Magnetizing Currents. M. N. Jablonski, Cornell University.

9:00 a.m.—Insulated Conductors

Note: The following paper will be available to members at \$2.00 per copy and to nonmembers at \$4.00 per copy.

60-785. Soil Thermal Characteristics in Relation to Underground Power Cables. A Report of the AIEE Insulated Conductors Committee, AIEE-ICC Subcommittee No. 14; R. W. Burrell, Chairman.

Part I: Introduction—Problem and Objective. R. J. Wiseman, The Okonite Co., R. W. Burrell, Consolidated Edison Co. of New York, Inc.

Part II: Soil Types—Identification and Physical Properties. W. A. Del Mar, Phelps-Dodge Copper Products Corp.; R. W. Burrell, Consolidated Edison Co. of New York, Inc.; C. A. Bauer, Commonwealth Edison Co.

Part III: Soil Moisture Characteristics. L. H. Fink, Philadelphia Electric Co.

Part IV: Soil Thermal Resistivity—Typical Field Values and Calculating Formulas. W. A. Sinclair, The Detroit Edison Co.; F. H. Buller, Ananconda Wire and Cable Co.; C. B. Benham, Florida Power Corp.

9:00 a.m.—Magnetic Amplifiers

60-872. Theory of Three-Phase Bridge Magnetic Amplifier—Part II: I The Time Constant. H. F. Storm, C. W. Flairty; General Electric Co.

60-873. Magnetization in Tape Wound Cores. R. C. Barker, Yale University (Re-presented for Discussion only)

CP.* Tunnel Diode-Saturable Reactor Control Element—Part I. R. E. Morgan, General Electric Co.

60-788. Theory and Operation of a Cross-Field Magnetic Modulator. I D. W. Boensel, California Inst. of Technology (Re-presented for Discussion only)

CP60-874. Initiation of Flux Reversal in Magnetic Amplifier Cores. F. J. Friedlaender, Purdue University; I. P. Leliakov, General Electric Co.

60-875. Time Response Constant and Transfer Function of Magnetic Amplifiers. E. W. Manteuffel, General Electric Co. (Re-presented for Discussion only)

9:00 a.m.—Nuclear Safety

CP60-869. Safeguard Considerations of the Piqua Organic Moderated Reactor. J. Jacobson, Atomics International.

CP.* Safety Problems Relating to Nuclear Vehicles. J. E. Standefer, Chance Vought Aircraft.

CP.* Reactor Safeguards. E. Case, U.S. Atomic Energy Commission.

CP60-896. Shipboard Radiological Safety As Related to Nuclear Submarines. J. F. Logsdon, Electric Boat Co.

9:00 a.m.—Analysis Techniques for Control Systems

- CP60-866. Analysis to Finite Pulse Systems with a Periodically Varying Sampling Rate and Pulse Width. E. I. Jury, T. Nishimura, University of California.
- 60-867. Sampled-Data Control System With Two Digital Processing Units. J. C. Hung, New York University.
- 60-779. Design of Servo Compensation Based on the Root Locus Approach. E. R. Ross, RCN, Dept. of National Defence (Navy); T. C. Warren, U.S. Navy; G. J. Thaler, U.S. Naval Postgraduate School.
- CP60-868. Fluid Servomechanisms by the Stability Factor Method. A. G. Fonda, Bell Aircraft Corp.
- 58-1362. A Digital Nuclear Reactor Control System. E. P. Gyftopoulos, Massachusetts Inst. of Technology; P. M. Coble, Stevens, Davis, Miller & Mosher (Re-presented for Discussion only)

9:00 a.m.—Instrumentation

- 60-882. A Single Channel Digital Data Recorder. W. J. Schmidt, I E. A. Sagan; Westinghouse Electric Corp.
- CP60-885. Transistorized Draw Speed Indicator for the Paper Industry. W. J. Schmidt, S. Salowe, Westinghouse Electric Corp.
- 59-160. A Transistor Oscillator Limit Switch for Indicating and Recording Instruments. J. T. Wintermute, S. G. Hayer; Westinghouse Electric Corp. (Re-presented for Discussion only)
- CP60-806. Miniaturized Current Transformers for Multi-Range Operation of Milliammeter Ink Recorders. W. A. Geyger, U.S. Naval Ordnance Lab.

9:00 a.m.—Data Communications & Telegraph Systems

- CP.* A Card to Magnetic Tape Data System. F. David, C. J. Zarcone, R. L. Wolf; Stromberg-Carlson Telephone Co.
- CP.* A Four Phase Data Transmission Modem. L. A. Weber, Bell Telephone Labs., Inc.
- CP.* Evaluation of Low Frequency Impairment in Baseband Data Links. R. A. Gibby, Bell Telephone Labs., Inc.
- CP60-790. "Datacom" Unit, an Experimental Data Transmission Sub-set. R. E. Stoffels, Automatic Electric Labs.
- CP60-891. Binary Decision Feedback With Envelope Detection. J. J. Metzner, K. C. Morgan, New York University.

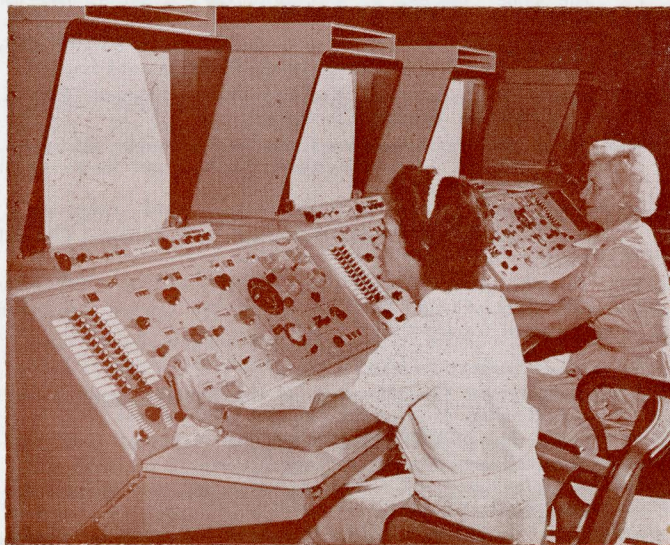
9:00 a.m.—Section Delegates Conference

2:00 p.m.—Distribution

- CP60-832. Determination of Economical Distribution Substation Size. J. A. Smith, General Electric Co.
- CP60-833. Economics of Primary Distribution Voltages of 4.16 Through 34.5 KV. J. A. Smith, General Electric Co.
- CP60-834. The Influence of Transmission on Distribution System Cost. D. N. Reys, J. E. McNabb, Westinghouse Electric Corp.

2:00 p.m.—Insulated Conductors

Note: The following paper will be available to members at \$2.00 per copy and to nonmembers at \$4.00 per copy.



Air Traffic Control Simulator, Federal Aviation Agency

- 60-785. Soil Thermal Characteristics in Relation to Underground III Power Cables. A Report of the AIEE Insulated Conductors Committee, AIEE-ICC Subcommittee No. 14; R. W. Burrell, Chairman.

Part V: Practical Application—Trench Design and Construction. A. S. Brookes, Public Service Electric & Gas Co.; M. H. McGrath, General Cable Corp.

Part VI: Measurement Techniques. A. W. W. Cameron, Hydro-Electric Power Commission of Ontario; A. S. Brookes, Public Service Electric & Gas Co.

- 60-809. Long Time Heat Runs on Underground Cable in a Sand Hill. III T. A. Balaska, A. L. McKean, E. J. Merrell; Phelps Dodge Copper Products Corp.
- 60-810. Seasonal Variation in Soil Thermal Resistivity. G. W. N. III Fitzgerald, J. W. Newall; Hydro-Electric Power Commission of Ontario.

2:00 p.m.—Magnetic Amplifiers

- 60-784. Analysis and Optimization of the Bridge Magnetic Servo Amplifier with True Motor-Load. J. M. Walsh, J. W. Fecker, Inc.; Z. H. Meiksin, University of Pittsburgh.
- 60-870. High-Power Pulse Generation Using Semiconductors and Magnetic Cores. E. M. Lassiter, Chance Vought Aircraft; P. R. Johannessen, Sylvania Applied Research Lab.; R. H. Spencer, Massachusetts Inst. of Technology (Re-presented for Discussion only)
- CP.* Capacitor Selection for Controlled Rectifier Circuits. J. D. Harnden, Jr., R. L. Watts, General Electric Co.
- 60-783. Static Control for a Mechanically Regulated D-C Supply. I H. J. Abrams, J. F. Brubaker, Westinghouse Electric Corp. (Re-presented for Discussion only)
- CP60-900. The Magnetic Amplifier as a Circuit Dual. D. A. Robinson, Airpax Electronics Inc.

2:00 p.m.—Nuclear Safety

- CP.* Safety Factors in Fast Reactor Design. C. E. Branyon, Atomic Power Development Associates.
- CP60-876. Some Experimental Studies of Safety of Outer Containment Structures for Nuclear Reactors. J. W. Hanna, Ballistics Research Labs.
- CP.* SPERT Reactor Safety Program. G. O. Bright, Phillips Petroleum Co.

2:00 p.m.—Broadcasting

- CP60-811. New TV Network Switching Facilities. A. E. Bachelet, C. A. Collins, E. R. Taylor, Bell Telephone Labs., Inc.
- CP.* Videotape Problems with Various International System Standards. J. R. Popkin-Clurman, Telechrome Mfg. Corp.
- CP.* Low Light Level TV. H. F. Stearns, General Electric Co.
- 60-812. Production Design Considerations in Television Chassis I Sweep Interference Reduction. G. W. Carson, Zenith Radio Corp.

2:00 p.m.—Section Delegates Conference

Wednesday, June 22

9:00 a.m.—Transmission & Distribution

- CP60-776. Determination of Generation Schedules by the Use of the Network Analyzers. S. T. Despotovic, Beograd, Yugoslavia.
- 60-777. A Fast Method of Development of Transmission Loss Formula. S. T. Despotovic, Beograd, Yugoslavia.
- 60-838. A Digital Computer Program for Secondary Network Analysis. R. F. Cook, J. N. Powers, Westinghouse Electric Corp.
- CP60-839. Computer Analysis of 32-Step Voltage Regulator Performance. A. C. Dolbec, M. W. Gangel, W. W. Green, General Electric Co.; A. J. Wood, Hughes Aircraft Co. (formerly with General Electric Co.)

9:00 a.m.—Transformers

- CP.* A New and Improved Heat Stabilized Insulation. M. G. Leonard, A. M. Lockie, J. G. Ford; Westinghouse Electric Corp.
- CP.* Temperature Capabilities of a Modern Transformer Insulation System. W. C. Farneth, W. H. Mutschler, Jr.; Allis-Chalmers Mfg. Co.

- CP.* New Aluminum Low Voltage Connector for Distribution Transformers. W. M. Armstrong, Allis-Chalmers Mfg. Co.
- 60-827. A Method of Calculating the Voltage Distribution of Cascade III Connected Testing Transformers. H. E. Schaffer, Westinghouse Electric Corp.
- CP.* A New Regulator for Distribution Transformers. J. J. Astleford, Westinghouse Electric Corp.

9:00 a.m.—Micro Systems Electronics—I

- CP60-877. Multiple-Collector Semiconductor Devices in Molecular Electronics. D. P. Kennedy, International Business Machines Corp., S. Gilman, General Electric Co.
- CP60-878. The Logic Potential of Molecular Electronics in the Multi-Collector Transistor. J. Earle, International Business Machines Corp.
- CP.* Logic Switches. G. Strull, M. N. Giuliano, D. D. O'Sullivan; Westinghouse Electric Corp.
- CP.* An Integrated Binary Adder. M. E. Szekeley, S. M. Marcus, J. T. Wallmark; RCA Labs.

9:00 a.m.—Basic Sciences

- CP60-884. Supermendur—A Space Age Magnetic Alloy. M. Lauriente, R. E. Lee, Westinghouse Electric Corp.
- 60-782. The Properties of Pole and Zero Locations for Nondecreasing Step Responses. A. H. Zemanian, New York University.
- 60-879. Analysis of Transcendental Nonlinear Systems. A. A. Wolf, I Stromberg-Carlson Co.
- CP60-880. Obtaining Acceleration Spectral Density Curves Directly From the Sinusoidal XY Plot. R. B. Kaplan, American Bosch Arma Corp.
- CP60-881. Series Connected Saturable Reactor with Direct Output and Inductive, Back EMF Load. H. R. Weed, The Ohio State University; S. P. Jackson, Power Equipment Co.

9:00 a.m.—Underground and Equipment Corrosion

- CP.* Underground and Equipment Corrosion Due to Dissimilar Metals in Soils and Solutions. M. C. Miller, Upper Saddle River, N. J.

9:00 a.m.—Communications Switching—I

- 60-788. Automation in Switching Equipment Engineering. M. E. Hacker, C. M. Davis; General Telephone Co. of California.
- 60-817. Automation of Telephone Switching Equipment Engineering. I L. W. Blumer, Northwestern Bell Telephone Co.; G. E. Reifentuhl, Western Electric Co.; N. E. List, Michigan Bell Telephone Co.
- CP60-818. Development of Special Positions for Handling Person-to-Person, Collect, and Credit Card Calls. L. Freericks, New York Telephone Co.
- 60-819. Reflections on the Traffic Usage Recorder with Emphasis I on Traffic Engineering. R. A. Bauerfeld, The Southern New England Telephone Co.

2:00 p.m.—Radio Influence and Conductors

- 60-848. The Calculation of Attenuation Constants for Radio Noise III Analysis of Overhead Lines. G. E. Adams, L. O. Barthold; General Electric Co.
- 60-775. The Pulses and Radio Influence Voltage of Power Frequency III Corona. A. S. Denholm, High Voltage Engineering Corp.
- CP60-840. Emissivity of Weathered Conductors After Service in Rural and Industrial Environments. W. S. Rigdon, R. J. Grosh, W. B. Cottingham, Purdue University; H. E. House, ALCOA Research Labs.
- CP60-841. The Prediction of Aeolian Vibration Fatigue Damage of Transmission Line Cables. R. F. Steidel, Jr., University of California.

2:00 p.m.—Transformers

- CP.* Detection of Incipient Faults in Transformers by Gas Analysis. P. S. Pugh, American Electric Power Service Corp.; H. H. Wagner, McGraw-Edison Co.
- 59-1133. Phase-Isolated LTC Transformers. F. P. Kasper, Oklahoma Gas & Electric Co.; J. S. Holtzinger, G. A. Wilson, McGraw-Edison Co. (Re-presented for Discussion only)
- 60-828. Bibliography on Transformer Noise. A.I.E.E. Subcommittee III on Audible Sound, Working Group on Technical Investigations; M. W. Schulz, Jr., Chairman.



Official USAF Photo
Air Surveillance Section, SAGE Direction Center

- 60-238. Sound Barrier Walls for Transformers. AIEE Committee Re-III port; M. W. Schulz, Jr., Chairman.

2:00 p.m.—Micro Systems Electronics—II

- CP.* Audio Amplifiers Functional Electronic Block. J. Husher, Westinghouse Electric Corp.
- CP.* Semiconductor Networks—A Realistic Approach to Micro-Electronics. R. C. Lee, Texas Instrument.
- CP.* Controlled Deposition of Thin-Volume Circuit Elements for Micro Circuits. J. Blank, General Electric Co.
- CP.* Vapor-Deposited Single-Crystal Germanium Layers for Use in Micro-System Electronics. R. P. Ruth, Bendix Corp.

2:00 p.m.—Land Transportation

- CP60-808. Economics of Electric Traction in Philadelphia. E. L. Tennyson; City of Philadelphia, Dept. of Public Property.
- CP.* Philadelphia Welcomes the First Fleet of Stainless Steel Rapid Transit Cars. G. H. Smith, Philadelphia Transportation Co.
- CP.* The First Fleet of Stainless Steel Rapid Transit Cars. L. F. Reynolds, The Budd Co.

2:00 p.m.—Chemical Industry

- CP.* Electric Vehicles. B. F. Bennett, General Electric Co.
- CP.* Electric Vehicles, Battery Power Supplies. H. C. Riggs, Electric Storage Battery Co.
- CP.* Nickel Cadmium Batteries. B. Eilbeck, Nife Inc.
- 60-849. Aircraft Storage Batteries. W. J. Hamer, National Bureau of Standards (Re-presented for Discussion only)
- 60-895. A Constant Voltage Battery Charger. C. H. Leet, The Electric Storage Battery Co.; W. Zug, The Electric Products Co. (Re-presented for Discussion only)

2:00 p.m.—Special Instruments & Auxiliary Apparatus

- 60-660. Portable Dynamic Electronic Speed-Torque Indicator. H. R. I Weed, Ohio State University.
- 60-835. Magnetic Flux Pattern Instrumentation Using Hall Probes. I H. Hollitscher, Canadian General Electric Co. Ltd.
- CP60-836. A New Naval Facility for Measuring Low Level Magnetic Fields. W. W. Anderson, U.S. Naval Engineering Experiment Station.
- CP.* Electronic Training and Control Device as Used in Short Circuit Testing. H. W. Mikulecky, McGraw Edison Co.

2:00 p.m.—Communications Switching—II

- 60-820. Voice Immunity of Tone Operated Switching Centers. J. H. I Guenther, Litton Industries; J. Shirman, Stromberg-Carlson Co.
- CP60-821. A Mechanical Presentation of a Transportable Electric Switching System. G. S. Hasman, Stromberg-Carlson Co.
- 60-822. Synthesis of a Resonant Transfer Filter as Applied to a I Time Division Multiplex System. P. J. May, T. M. Stump; Stromberg-Carlson Co.

Thursday, June 23

9:00 a.m.—Economics of Generator Shutdown

- CP60-894. Economics of Generator Shutdown and Start-up. R. T. Drew, Niagara Mohawk Power Corp.
 CP.* Scheduling Generating Capacity for Minimum System Loads. A. C. Hartranft, F. H. Light, Philadelphia Electric Co.
 CP60-847. Factors Controlling Generator Shutdowns in Light Load Periods. H. C. Otten, M. Salvage, M. J. Steinberg; Consolidated Edison Co. of New York, Inc.
 CP.* Short-Time Shutdown of Steam Turbine Generator Units. A. P. Hayward, R. M. Buchanan, Duquesne Light Co.

9:00 a.m.—Land Transportation

- CP.* Progress Report on Traction Motor Insulation. J. K. Wentz, R. M. Lukes; General Electric Co.
 CP.* Extension of Epomica Insulation to Light Traction Motors. J. W. Clokey, J. R. Shirley; Westinghouse Electric Corp.
 CP.* Diesel-Electric Locomotive Excitation Systems. A. V. Johanson, General Electric Co.
 CP.* Static Voltage Regulators. R. K. Allen, W. B. Zelina; General Electric Co.

9:00 a.m.—Distribution

- CP60-842. Voltage Nomenclature—Secondary and Utilization Systems. A. S. Anderson, Ebasco Services Inc.
 CP60-843. Distribution System Planning Through Optimized Design III—Choice of Voltage-Regulation Point in the System. R. F. Lawrence, D. N. Reys, A. D. Patton; Westinghouse Electric Corp.
 60-855. Correlation of Radial Distribution Feeder Regulation Variables and Determination of Regulator Voltage Control Limits. C. J. Couy, Duquesne Light Co.
 CP60-883. Single Phase, Single Wire Transmission for Rural Electrification. R. W. Atkinson, R. K. Garg; Bihar Institute of Technology.

9:00 a.m.—Substations

- CP.* Public Relations Improved by Decorative Substation Enclosures. J. D. Hoffman, High Voltage Equipment Co.
 CP60-796. The Application of Mobile Substations to the San Diego Gas & Electric System. C. D. Mack, San Diego Gas & Electric Co.
 60-797. An Indoor 138/26/13 KV Switching Station for Newark, III New Jersey. R. N. Southgate, Public Service Electric & Gas Co.
 60-798. Omaha Public Power District 161 KV Substation Design. III H. C. Sampers, Omaha Public Power District.



Central Studios

Haddon Hall Hotel Sun Porch

9:00 a.m.—Computer Simulation and Components

- CP60-802. Computer Simulation of Magnetic Character Recognition Logic. A. Hamburg, Martin Schatzoff; International Business Machines Corp.
 CP60-803. The Use of Z Transforms for a Digital Simulation of a Continuous Transfer Function. P. A. Stephens, Jr., Litton Industries (formerly with Hughes Systems Development Labs.)
 CP60-804. An Improved Ferro-Resonant Transformer. P. Essinger, O. M. Baycura; International Business Machines Corp.
 CP60-805. A System of Threshold and Analog Logic for Variable-Radix Adders and Other Computer Organs. J. Sklansky, RCA Labs.
 CP60-860. Fault Calculations for a Radial Shipboard Distribution System with a Digital Computer. S. M. Scarborough, J. C. McKee, Jr.; Mississippi State University.

9:00 a.m.—Wire Communication Systems

- CP60-888. O—OJ Carrier Junction Equipment. T. G. Fellows, Northern Electric Co.
 CP60-813. A Transistor Automatic Gain Control System for Audio Frequencies. J. Shirman, Stromberg-Carlson Co.
 60-814. E6 Telephone Repeater Background, Description, and Theory of Operation. E. J. Doyle, T. J. Talley, American Tel. & Tel. Co.; L. Hochgraf, L. Pedersen, J. O. Smethurst, Bell Telephone Labs., Inc. (Re-presented for Discussion only)
 60-815. Wire Line and Carrier Communications on the Union Pacific Railroad. C. O. Jett, Union Pacific Railroad (Re-presented for Discussion only)
 60-816. A Voice-Band Transmission Measuring Set Using Swept-Band Techniques. W. C. Lent, Hallamore Electronics Co. (Re-presented for Discussion only)
 CP60-823. The Interpretation of Results obtained with a Swept-Band Transmission Measuring Set. S. L. Wilson, Jr.; Siegler Corp.

2:00 p.m.—Economics of Hydro-Thermal System Operation

- 60-837. Hydro-Thermal Economic Scheduling—I—Solution by incremental Dynamic Programming. B. Bernholtz, L. J. Graham; The Hydro Electric Power Commission of Ontario (Re-presented for Discussion only)
 CP.* Hydro-Thermal Economic Scheduling—II—Extension of Basic Theory. B. Bernholtz, L. J. Graham; The Hydro Electric Power Commission of Ontario.
 CP60-890. Hydroelectric Generation Scheduling. L. G. Peck, Arthur D. Little, Inc.
 60-787. Forced Generation Outage Investigations for the Northwest Power Pool. H. U. Brown, III, Puget Sound Power & Light Co.; L. A. Dean, Bonneville Power Administration; A. R. Caprez, Light Division of the Dept. of Public Utilities, Tacoma.
 CP60-844. Incremental Cost of Water Power. S. Stage, Y. Larsson; South Sweden Power Co.

2:00 p.m.—Switchgear-Substations

- CP60-824. Technical and Economic Features of a 120/12/4 KV Hydro-Quebec Substation. J. Reist, Quebec Hydro-Electric Commission.
 60-825. Current Asymmetry in Resistance-Reactance Circuits. III E. T. B. Gross, Illinois Inst. of Technology; R. L. Kuntzen-dorf, Commonwealth Edison Co.
 60-826. Switching of 138-KV Cable on 69-KV Side of Transformer. III E. L. Michelson, Commonwealth Edison Co.; H. E. Lokay, Westinghouse Electric Corp.
 CP60-893. Joining Copper Bus Bars. M. Brenner, Penn-Union Electric Corp.

2:00 p.m.—Rotating Machinery

- 60-772. Possibility of Reversing Single Phase Squirrel Cage Induction Motors by Reversing the Terminal Supply Voltage. Amulya K. Das Gupta, Illinois Inst. of Technology.
 CP60-771. The Design of High Voltage Squirrel Cage Induction Motors on a Digital Computer to Meet Fixed Specifications. P. H. Conceicao, Bruce Peebles & Co., Ltd.
 CP.* Report on Experience Using AIEE No. 511 for Evaluating Insulating Systems for Rotating Machines. Working Group for AIEE No. 511; G. L. Moses, Chairman.

2:00 p.m.—Information Processing and Retrieval

- CP.* Post Office Mechanization. B. M. Levin, M. C. Stark, P. C. Tosini; National Bureau of Standards.
 CP60-807. Information Storage and Retrieval Part I—Dogs, Cats and Indexing. A. F. Glimm, R. D. Greenway; General Electric Co.
 CP60-859. Design Considerations for Computer Driven Displays in the FAA Man-Machine Simulator for the Study of Air-Traffic Control Systems. R. P. Niquette, The Thompson-Ramo-Wooldridge Products. Co.
 60-215. The LN 3000 Computer Control System. K. G. Harple, R. G. I Lex, Jr; Leeds and Northrup Co. (Re-presented for Discussion only)

2:00 p.m.—Radio Communication Systems

- CP60-792. A New Look at Coastal Radiotelephone Engineering. C. F. White, Pacific Telephone Co.
 60-793. Providing 150 MC Telephone Service to North Carolina's Ocracoke Island. M. B. McMillan, Carolina Telephone & Telegraph Co.
 CP60-794. Practical Narrow Band System Operation. T. A. McKee, General Electric Co.
 CP60-795. A Communication System for a Canadian Gas Pipeline. D. M. Atkinson, The Bell Telephone Co. of Canada.
 CP60-892. Merits of Transistorized Mobile Radio Equipment in the Utility Field. B. W. Conover, South Jersey Gas Co.
 60-899. R. F. Transmission Line Engineering. R. F. Lewis, Prodelin, Inc.

2:00 p.m.—New Activities and Research

Panel Discussion on: Exploring the Future of Direct Energy Conversion

2:00 p.m.—Lighting for Land Transportation

- CP.* Electrically Operated Railroad Switch Lamps. H. L. Folley, W. A. Costello; Western Railroad Supply Co.
 CP.* Modern Light Sources for the Railroad Industry. R. D. Churchill, R. L. Henderson; General Electric Co.
 CP.* Catenary-Mounted Luminaries for Railroad Yard Lighting. A. W. Herman, Line Material Industries.

7:30 p.m.—Forum of Technical Committee Chairmen (Open to all AIEE Members)

Friday, June 24

9:00 a.m.—Computer Applications in Power Systems

- 60-255. Digital Calculations of Single Phase to Ground Faults. H. E. III Brown, C. E. Person; Commonwealth Edison Co. (Re-presented for Discussion only)
 CP60-897. Computer Solution of Transmission Line Intermediate Point Faults with Mutual Coupling. M. J. Lantz, Bonneville Power Administration.
 CP60-845. System Representation, Data Handling and Interpretive Techniques for Digital Power Flow Studies. M. A. Schnetzler, J. B. Cage, Allis-Chalmers Mfg. Co.; J. J. Skiles, University of Wisconsin; E. Jochum, Commonwealth Edison Co.
 60-781. A Digital Method for Obtaining a Loop Connection Matrix. III W. F. Tinney, C. M. McIntyre, Bonneville Power Administration.
 60-780. Digital Calculation of Network Inverse and Mesh Transformation Matrices. N. Sato, Bonneville Power Administration.

9:00 a.m.—Rotating Machinery

- CP60-854. The Parallel Rail Electromagnetic Accelerator. R. M. Bergslien, J. L. Radnik, A. Bak; Illinois Inst. of Technology.
 CP60-889. Silicones in Enclosed D.C. Machines. U. M. Elder, Westinghouse Electric Corp.
 CP.* Iron Saturation and Magnetization Characteristic in Electrical Machine. J. Ben Uri, Carnegie Inst. of Technology.
 CP.* Generalized School Set. J. J. Riley, Westinghouse Electric Corp.

9:00 a.m.—Industrial & Commercial Power Systems

- CP60-799. Power Company Policies in Serving Industrial Plants. D. T. Michael, The Cincinnati Gas & Electric Co.
 CP.* Written Discussion of Mr. Michael's Paper. J. H. Beckmann, Philadelphia Electric Co.
 CP60-800. Factors Determining Primary Substation Ownership. C. C. Saunders, E. I. DuPont de Nemours & Co., Inc.
 CP.* Written Discussion of Mr. Saunderson's Paper. R. H. Felch, Owens-Corning Fiberglass Corp.

2:00 p.m.—System Engineering Problems

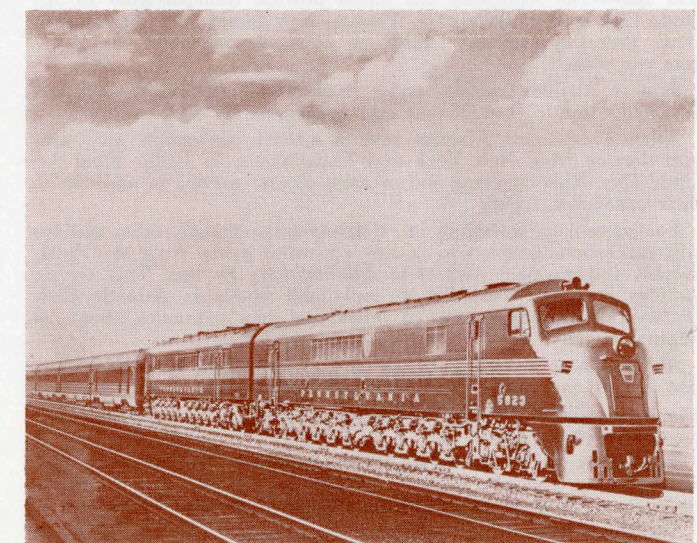
- 60-791. Principles of Economic Dispatching for Electric Power System Operators. H. B. Smith, Niagara Mohawk Power Corp.
 CP60-846. Methods of Controlling Generation on Interconnected Power Systems. N. Cohn, Leeds & Northrup Co.
 CP.* A Generalized Form of the Nyquist Diagram and an Illustration of its Application to Electrical Power Systems. S. L. Mikhail, Ain-Shams University.
 60-367. Direct Calculation of Transmission Loss Formula—I. L. K. III Kirchmayer, H. H. Happ, General Electric Co.; G. W. Stagg, J. F. Hohenstein, American Electric Power Service Corp. (Re-presented for Discussion only)

2:00 p.m.—Rotating Machinery and Power Generation

- 60-774. Mathematical Analysis of Inductor Alternators. Amulya K. III Das Gupta, Illinois Inst. of Technology.
 60-773. Analytical Method to Find the Best Number of Stator and Rotor Teeth of Inductor Alternator For Three Phase Sinusoidal Voltage Generation. Amulya K. Das Gupta, Illinois Inst. of Technology.
 60-850. Pole-Changing of Salient Pole Synchronous Machines. K. III Sano, Tokyo Shibaura Electric Co., Ltd.
 CP60-851. Performance of a New Static-Magnetic Exciter and Voltage Regulator for Round Rotor Marine Steam Turbine Generators. D. F. Talcott, P. M. Tabor, C. Concordia; General Electric Co.
 CP60-852. A New Frequency Converter Excitation "FCE" System for A.C. Generators. K. M. Sparrow, Lima Electric Motor Co.

2:00 p.m.—Industrial & Commercial Power Systems

- CP.* Testing and Setting of Relays on Industrial Power Systems. C. E. Batchelder, W. N. Landis; General Electric Co.
 CP.* Non-leaded Cable Terminations. C. E. Mindnich, General Electric Co.
 60-801. The Case for Standardizing Airport Apron-Outlet Distribution Systems at 1000-Volts, 400-Cycles. J. B. Chapman, Ammann & Whitney.



6000 H.P. Pennsylvania Railroad Diesel Electric Locomotive

AIEE SUMMER GENERAL MEETING

CONTINUED FROM PAGE TWO

Seaside Hotel & Motel (Pennsylvania Ave. and Boardwalk)

Single, one person \$12
Double (twin beds) \$12, 14, 16, 18, 20

Tides Motel (North Carolina Avenue)

Double \$12, 14

Coronet Motel (North Carolina Ave.)

Double \$12, 14, 16, 18
Single \$10, 12

ENTERTAINMENT

The social activities planned for the evening entertainment start Monday Evening, June 20 and end Thursday Evening, June 23.

Monday Evening, June 20—A Cabaret Dance will be held at Haddon Hall in the Vernon Room from 9 P.M. until 1 A.M. Refreshments will be available dutch treat. Jimmy Marshall and the Top Tones Orchestra will be featured. There will be novelty and elimination dances for prizes. Price per ticket \$2.50 at the ticket desk.

Tuesday Evening, June 21—A card party will be held in the Rutland Room, Haddon Hall, starting at 8 P.M. This is informal, for ladies and gentlemen. There will be no admission charge. Refreshments will be available. Door prizes will be provided.

Wednesday Evening, June 22—Dinner and Show. Social Hour at 5:30 preceding dinner at 6:45 P.M. and show to follow. The show will feature: Singers, Earl Wrightson and Lois Hunt; Comedian—Charles Manna, the popular harmonica player—Alan Black, and one of the nation's finest dance teams—Alfred and Lenore. Price per ticket \$8.75 at the ticket desk.

Thursday Evening, June 23—Moonlight Cruise on Captain Starn's boat along the coast opposite Atlantic City. Price per ticket \$1.75—available at the ticket desk.

(Although most will want to go on Thursday night, boat trip tickets will be honored for either Tuesday or Thursday evening). Speed boat rides are available during the day.

SPORTS—Monday through Friday

Golf—The facilities of the Atlantic City Country Club, located at Northfield, New Jersey, about eight miles from A.I.E.E. headquarters hotel, will be available. These facilities include a sporty 18-hole course and a smaller pitch and putt course. Green fee—\$5.00 weekdays.

Fishing—Half-day trips leaving from Starn's Boat Dock, Atlantic City Inlet, at 8:30 A.M. returning at noon, and 12:30 P.M. for return at 5:30 P.M. will be available at approximately \$4.00 per person. All day fishing boats leave docks at intervals from 7 A.M. to 9 A.M. for approximately \$5.00 per person. Tackle may be rented.

TRANSPORTATION TO ATLANTIC CITY

General—Atlantic City is essentially a summer-time resort and during the June meeting transportation facilities should be ample. Pertinent data on each type of transportation which is available together with other factors which should be considered are outlined below.

Via Air—The Allegheny Air Lines provide transportation to Atlantic City from Philadelphia, Newark, New Jersey, and Washington, D. C. Presently available equipment seats approximately 45 passengers per plane.

Eastern Airlines provide service from New York and Washington, D. C. to Atlantic City. Planes seat approximately 40 passengers.

Atlantic Seaboard Airlines have a special convention air transport service from New York and Philadelphia to Bader Field Atlantic City. This company will arrange charter service in addition to their scheduled flights.

For passengers travelling in relatively large groups, other airlines will make arrangements to convey an entire group from the Philadelphia International Airport to Atlantic City by bus. This service handles passengers directly to individual hotels in Atlantic City. Distance is approximately 70 miles and trip consumes about 90 minutes.

All delegates travelling by air should investigate possible reduction in fare for groups of ten (10) or more.

Via Automobile—Routes for delegates travelling by automobile are recommended as follows:

From South. Use U. S. Route 40, cross over the Delaware Memorial Bridge about 12 miles below Wilmington, Delaware, and continue on U. S. 40 to Atlantic City.

Through Philadelphia. Schuylkill Expressway now has a direct connection to the new Walt Whitman Bridge at Philadelphia, then proceed on New Jersey Route 42 to Atlantic City.

From the West. An alternate route from the West would follow the Pennsylvania-New Jersey Turnpike System, across the Delaware River above Burlington, New Jersey. Leave the New Jersey Turnpike at Exit No. 7 to U. S. Route 206, thence U. S. 30 to Atlantic City.

From the North. Follow the Garden State Parkway to its junction with U. S. 30, a few miles from Atlantic City.

Ample parking facilities are available in Atlantic City during the month of June.

Via Bus—High-speed frequent express bus service is available from New York and Philadelphia to Atlantic City.

From New York service is provided by two firms—The Lincoln Transit Company and the Public Service Company of New Jersey. Buses leave from the New York Bus Terminal in downtown Manhattan. Tickets on the two bus lines are not interchangeable.

From Philadelphia service is also provided by two firms—Public Service Company of New Jersey and Trailways Company. Buses leave from the Public Service Terminal at 13th and Filbert Streets. Tickets on these lines are interchangeable.

Via Railroad—Railroad travel to and from Atlantic City is handled by the Pennsylvania Reading Seashore Lines. From Philadelphia this service can be arranged through either the 30th Street Station or the North Philadelphia Station of the Pennsylvania Railroad. Delegates travelling from distant cities should use Pennsylvania Railroad through service and change to the Seashore Lines at North Philadelphia.

Schedules for trains on both railroads are revised with the change to Daylight Saving Time on Sunday, April 24. Delegates planning to travel by railroad should check schedules which are issued on that date.

Railroad service via Washington, D. C. or Baltimore, Md. is available to delegates travelling from some Mid-Western cities, at no extra cost. Delegates travelling in large groups should investigate special rates which may be obtained. Consult your local railroad or Pullman passenger agent.

Via Any Commercial Transportation—For best results delegates travelling from distant points should make reservations complete to destination in Atlantic City before departure.

Note: On Friday, June 24, buses will be provided for an inspection trip to the new Philadelphia Electric Company Generating Station at Eddystone, Pa. Arrangements have been made for the handling of luggage on these buses and for stops on the return trip to Philadelphia International Airport and Pennsylvania Railroad 30th Street Station. Advance reservations for this service will be appreciated.

REGISTRATION

The registration desk located in the lobby of Haddon Hall will be open from 2:30 P.M. to 4:30 P.M. on Sunday and from 8:30 A.M. to 4:30 P.M. daily throughout the meeting. Members should register upon arrival and the registration fees are \$6.00 for members, \$10.00 for non-members and \$2.00 for ladies. Student members will not be charged a registration fee.

There will be no advance registration for the technical sessions, but those planning to participate in the social events and inspection trips are requested to return the cards which have been mailed to all members in order to assist the meeting officers in their plans or the various events. Cabaret Dance or Dinner Show tickets will not be held unless paid for in advance. Remaining tickets will be sold on a first-come, first-served basis.

Directors, officers and delegates may receive their credentials at a special desk in the registration area.

The members of the **1960 SUMMER GENERAL MEETING COMMITTEE** are:

S. Reid Warren, Jr., General Chairman; Howard H. Sheppard, Vice-Chairman; Bruce H. Zacherle, Treasurer; David B. Smith, Chairman, Finance Committee; W. R. Clark, C. Stuart Collier, Donald L. Greene, Roger S. Hewett, Arthur E. Pringle, II, George B. Schleicher, Maxwell L. Stoughton, Members at large; Robert L. Halberstadt, Arrangements Committee Chairman; C. H. Rice, Entertainment Committee Chairman; Walter P. Wills, Hotel Committee Chairman; Theodore H. Story, Inspection Trips Chairman; Mrs. Cullen Pearce, Ladies' Committee Chairman; Robert T. Ferris, Publicity Committee Chairman; Charles S. Dayton, Registration Committee Chairman; Thomas W. Metz, Sports Committee Chairman; Edwin M. Callender, Students Committee Chairman; Rowland G. Lex, Jr., Technical Program Committee Chairman; Spencer V. Smith, Transportation Committee Chairman.

Issued by
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
33 West 39th Street, New York 18, N. Y.

PRINTED IN U.S.A.