the MONITOR

News of the New York Section, IRE

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RADIO COMMUNICATION— Wednesday, June 2, 7:30 P. M.

The June Meeting will be held at Columbia University, Harkness Academic Theater, Nicholas Murray Butler Library, 114th St. between Broadway & Amsterdam Aves.

LLOYD ESPENSCHIED has been a part of radio, especially in the New York area, from his amateur days beginning about 1904. He was born in St. Louis, Mo., on April 27, 1889, moved to Brooklyn as a boy, and graduated from Pratt Institute in 1909.

After a year with the Telefunken Wireless Telegraph Company of America, Mr. Espenschied joined the Bell System to become a creative participant in the rise of radio as that art is known today and in allied fields. He is an out-

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THE ORIGIN AND RISE OF RADIO COMMUNICATION: *A Half Century or More of Dynamic Development, A Prelude of the Future* by Lloyd Espenschied, Bell Telephone Laboratories, Incorporated.

An illustrated recalling in terms of instrumentalities, the physical laws and trends, and the men who made the discoveries, did the engineering, and adapted them to services.

Slides which will be used in connection with "The Origin and Rise of Radio Communication" are described below. These slides are being listed according to their subject matter as they appear in the talk.

PRELUDE

The original microwave space transmitter and relay system, the optical semaphore telegraph of Napoleon's time; beginning of electrical frequency discrimination, in the electromechanical

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PRE-MEETING DINNER—6:15 P. M., Gold Rail Restaurant, 2850 Broadway, between 110th and 111th Sts. No reservations necessary.

JUNE CALENDAR

2—N. Y. Section Meeting (page 1)
9—PGEM (page 3)
10—PGANE (page 3)
29—PGEC (page 3)

The next regular meeting of the New York Section will be held in September, probably on September 8.

BIOGRAPHY

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standing inventor, has a knowledge of international events and people, and is a student of electrical history.

Mr. Espenschied is a Fellow of the IRE, and a Charter Member of the IRE and of one of the preceding societies, The Wireless Institute.

RADIO COMMUNICATION

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tuning forks as used by Helmholtz in the analysis and synthesis of tones; upon the birth of the telephone, the cartoonist immediately visualized the world-wide dissemination of speech broadcasting, illustrated in the Daily Graphic of New York for March 15, 1877.

OPENING OF A NEW FREQUENCY REALM BY THE SPARK-TRIGGERED DIPOLE, AND ENSUING SPARK TELEGRAPHY

Hertz' oscillator and receiving resonator; Hertz' exploration of short electromagnetic waves on wires as well as through space; Marconi, his thumping induction coil and receiver of coherer and recorder; attaining great distances leads to longer waves—Marconi's station at Cape Cod; the American wireless inventor Lee deForest—the apparatus with which he and his associates started in Chicago, 1901; German apparatus, Slaby-Arco, with which the U. S. Navy started wireless; typical U. S. commercial wireless telegraph installation, following the deForest system (United Wireless), 1909; the famous old Manhattan Beach station about the same time; call letters, etc., United Wireless telegraph stations, 1909; the quench spark type of transmitter which came from Germany at that time.

ELECTRONIC RADIO

Search for a non-mechanical type of amplifier—Peter Cooper Hewitt patent of Mercury Vapor Arc, 1904; deForest's famous grid-control audion or triode, patent issued 1907; announcement of deForest's lecture in Brooklyn, March, 1907, at which his triode was first publicly exhibited, with no appreciation of its great significance; 1907 installation of the U. S. round-the-world fleet of little arc radio telephones by deForest, including audion detector; cathode-ray beam tube attempt at telephone amplifier by von Lieben, 1906; von Lieben et al grid-control mercury vapor tube telephone amplifier, 1910-12.

ELECTRONIC RADIOTELEPHONY

The master-oscillator type of transmitter employed in first carrier and radio electronic transmitters—exemplified in transmitter of 1915 transoceanic radio experiments; "breadboard" experimental assembly of same, low power end; hundreds of power tubes in parallel supply the transmitting power for spanning the continent and the ocean, 1915; type of receiving apparatus employed in those experiments; improvised receiving site at Pearl Harbor during 1915 experiments.

A number of other slides will also be discussed but space does not permit descriptions of them here.

PROFESSIONAL GROUPS

Aeronautical and Navigational Electronics

This Group (PGANE) will hold its next meeting on Thursday, June 10, at the General Electric Auditorium, 51st and Lexington. Time of the meeting is 7:30 P. M. Mr. D. O. McCoy of Collins Radio Co. will present a paper entitled "A Simplified Omnirange System for Terminal Navigation (TVOR)". Election of officers will also be held at this meeting.

Electronic Computers

The next meeting of PGEC will be held on June 29 at 8:00 P. M. Location will be the Control Instruments Corp., 67 35th St., Brooklyn (Bush Terminal). Mr. William Wockenfuss, vice president in charge of engineering at Control Instruments, will talk about high-speed printers and will demonstrate a unit capable of printing 1000 lines per minute.

Election of officers for the coming year will also be held at this meeting.

Engineering Management

The first organizational meeting of PGEM was held on April 8, with about 45 in attendance. A Chapter Formation Petition was circulated, and has been presented to the New York Section for consideration.

Next meeting of this Group will be Wednesday, June 9, at 7:30 P. M. The meeting will be held in Room 501A of

the Engineering Societies Bldg., 33 West 39th St. Mr. Hector Skifter, president of Airborne Instruments Laboratory, will speak on "The Role of the Group Supervisor in the Administration of a Research and Development Organization."

Election of officers will be held at this meeting. The nominating committee formed at the April 8 meeting will present a slate of candidates.

STUDENT AWARDS

An award is presented each year by the New York Section to a student in each student branch. The award consists of a certificate and a voucher good for the first year's dues as Associate. Choice of the recipient is based on participation in student branch activities, participation in Section committee activities, participation in prize paper or demonstration contests, scholastic ability, and other extra-curricular activities.

This year's awards, which will be presented at the June 2 meeting, are as follows:

THOMAS J. BRADY, Manhattan College
DAVID LERNER, Brooklyn Polytech
ERNEST J. KAUFMAN, Pratt Institute
MURRAY GRANT, New York U.
GARY SCHUMACHER, Columbia U.
PHILIP A. HARDING, Cooper Union
HARRY HILSINGER, Newark College
ROBERT THAU, City College

LONG ISLAND SECTION

At the May 11 meeting, the following officers were elected for the coming year:

Chairman—WILLIAM F. BAILEY
Vice-Chairman—CLARK CAHILL
Secretary—PAUL HANSEL
Treasurer—CAROL VERONDA

The May 22 field trip took the place of the June meeting, so no further meetings will be held until September.

NEW YORK SECTION OFFICERS

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NORTHERN NEW JERSEY SECTION

Congratulations to our friends in Northern New Jersey for achieving full Section status! This new status was made official on May 5. We will miss you, but wish you the best of luck!

The Northern New Jersey Section will not have a June meeting, the next meeting being scheduled for September 15. Officers for the coming year are:

Chairman—F. A. POLKINGHORN
Vice-Chairman—W. R. THURSTON
Secretary—B. G. GRIFFITH
Treasurer—G. D. HULST

SUBSECTIONS

Mid-Hudson

No further meetings of the Mid-Hudson Subsection will be held until September. Officers for the coming year are:

Chairman—E. J. BREIDING
Vice-Chairman—E. A. KELLER
Sec.-Treas.—E. S. WILSON

Committee chairmen appointed so far include:

Program—R. MERWIN
Publicity—J. E. BARTELT
Membership—R. L. LINDSAY

Monmouth

There will be no meeting in June. Information concerning the September meeting will appear in the September issue of THE MONITOR.

Officers for the coming year are:

Chairman—W. M. GOODALL
Vice-Chairman—GEORGE SENN
Sec.-Treas.—ARTHUR H. ROSS

KNOW THE NOMINEES

Here are brief biographies of the nominees for officers of the New York Section for the coming year. Election will be held at the June 2 meeting.

Chairman—A. B. GIORDANO

ANTHONY B. GIORDANO (SM '46) was born on February 1, 1915, in New York City. He attended the Polytechnic Institute of Brooklyn and was the recipient of the following degrees: B.E.E. in 1937, M.E.E. in 1939, and D.E.E. in 1946. Dr. Giordano joined the academic staff of P.I.B. in 1939. At present, he is professor of electrical engineering, assistant chairman of the Graduate Electrical Division in charge of the master's degree program, and coordinator of P.I.B.'s Graduate Center at Mineola, N. Y. His teaching interests are basic electronics, network theory, and electromagnetic fields and waves.

Following a period of part-time affiliation with various companies, Dr. Giordano became associated with the research staff of the Microwave Research Institute in 1942. He holds the position of research supervisor and is in charge of personnel. His contributions are numerous.

Dr. Giordano is a member of the APS, AIEE, Eta Kappa Nu, Tau Beta Pi, and Sigma Xi. He has served as faculty representative of the IRE Student Branch at P.I.B., has participated in various IRE National Conventions, has been a member of the IRE Committee on Antennas and Waveguides, and is currently vice-chairman of the New York Section. He also is a member of a number of AIEE committees.

Vice-Chairman—A. C. BECK

ALFRED C. BECK was born in Granville, N. Y., on July 26, 1905. He received the E.E. degree from Rensselaer Polytechnic Institute in 1927.

After two summers in the test department of the New York Edison Company and a year as instructor in mathematics at Rensselaer, Mr. Beck became a member of the technical staff of Bell Telephone Laboratories in 1928. Since then, he has been in the Radio Research Department, working on antennas, wave guides, and various short-wave, radar and microwave projects. At present, he is concerned with broadband communication by means of radio relay and circular electric waveguide systems.

Mr. Beck is a licensed professional engineer, a member of Sigma Xi, and a senior member of the IRE.

Secretary—H. S. RENNE

HAROLD S. RENNE (SM '48) was born on February 8, 1914, in Illinois. He received an A.B. degree from Kalamazoo College in 1934, and an M.S. degree from Syracuse University in 1938.

Employed at Underwriters' Laboratories, Inc., from 1939 to June, 1943, Mr. Renne then taught pre-radar and physics at the Illinois Institute of Technology until February, 1944. Since that time he has been technical editor of Radio & Television News and Radio-Electronic Engineering.

Mr. Renne has served on various committees in both local and national IRE organizations, the National Electronics Conference, and other professional organizations. He is a registered professional engineer, and a member of Sigma Xi, AIEE, SMPTE, and ASA.

Treasurer—J. S. SMITH

JOSEPH SETON SMITH was born in New York on July 16, 1925. He received the B.E.E. from Iowa State College in 1946, and the M.E.E. degree in 1950 from New York University, where he is presently a candidate for the doctorate.

H. S. RENNE
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FIRST CLASS

Joining the staff of the Electrical Engineering Department at New York University in 1947 as an instructor, Mr. Smith was appointed research associate in 1950 and to his present position as project director in 1951. In addition to these research activities, he also presents graduate courses in analog and digital computers.

Mr. Smith has been chairman of the Student Activities Committee in the New York Section for the past three years. He is a member of Eta Kappa Nu, Pi Mu Epsilon, Sigma Xi, the AIEE, and ASEE.