



SPERRY GYROSCOPE COMPANY

DIVISION OF SPERRY RAND CORPORATION

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10 January, 1962

Mr. W. E. Pakala
Research Laboratories
Westinghouse Electric Corp.
Beulah Road, Churchill Boro.
Pittsburgh 35, Pa.

Dear Mr. Pakala:

Enclosed are two copies of my biography as requested in your letter of 29 December, 1961.

Very truly yours,

Milton Kant
ESH/Equipment Engineering
MARS Central, 0-3

MK/lj

COPIES

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Biographical Sketch

Kant, Milton (S '47 - A '48 - M '55) Engineering Section Head for Radio Frequency Interference Measurements, Sperry Gyroscope Co., Division of Sperry-Rand Corp., Great Neck, N. Y.

Co-founder of IRE Professional Group on Radio Frequency Interference. Member National Administrative Committee, PGRFI 1957-1961, Chairman, Constitution and By-Laws Committee, Secretary 1960-1961. Chairman, Radio Interference Panel of Aerospace Industries Association.

Education - B.E.E., City College of New York, 1947.

Experience - 1954 to date - Responsible for rf interference measurements on systems, equipment and components produced by various divisions of Sperry Gyroscope Company. Responsible for system analysis and compatibility for shipboard and airborne systems.

1950-1954 - Responsible for development of automatic instrumentation for ground electronic systems of Rome Air Development Center, Rome, N. W.

1948-1950 - Design and Installation of air navigation facilities and stations for Civil Aeronautics Administration (now FAA).

Papers - Co-author - "Automatic Instrumentation for Ground Electronic Equipment" - Presented at 1953, IRE Convention.

Co-author - "Spurious Radiation Measurements on Radar Set AN/FPS-35" - presented at Sixth Armour Conference.

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BIOGRAPHIES - PGRFI ADMINISTRATIVE COMMITTEE CANDIDATES

Arnold Albin

Technical Director, Systems Engineering Division, Filtron Company, Inc. Flushing, N. Y.

Education: B. S. and M. S. in Electrical Engineering - Illinois Institute of Technology.

Presently employed as Technical Director of the Filtron Company East Coast Systems Engineering Division. This work has involved studies of signal density, frequency allocation, interference to communications and radar, measurements, and related research and development.

Participated in the Atlas Missile Program, as supervisor of Filtron's Theoretical Studies Group. Responsible for the determination of limits on susceptibility to interference, and evaluation of interference specifications and test procedures.

At the Armour Research Foundation, he directed a field survey program for the joint military services, pointed at reduction of radio and radar interference; based on these findings, a research program was prepared for the Department of Defense. He directed the early phases of a program for interference reduction in missile control and guidance systems for the U. S. Signal Corps Laboratories at Fort Monmouth. Another study he directed was intended to evaluate and analyze susceptibility of friendly and enemy communications equipment and data links to countermeasures. Based on this study, a jamming system was designed for highly mobile field applications.

As a consultant to the Signal Corps, he participated in the Project Monmouth studies of interference reduction by frequency allocation and other techniques. He also organized and conducted two nationwide conferences on interference reduction.

Bennett, S. A.

Graduated U. of Michigan (B.S. E.E.) 1929.

Staff Member Radiation Laboratory (MIT) 1943-1946. Navy civilian Electronics Engineer 1946 including electronic automatic control, antenna, electronic, general communication. Electromagnetic Interference Reduction Engineer and Electronic Consultant for the Bureau of Yards and Docks from 1954 to date.

Memberships and Affiliations:

IRE; PGRFI; Registered Professional Engineer Washington, D. C., American Standards Association; CISPR; Delegate to CISPR Working Group Conference in London, Frankfurt and Philadelphia; Department of Defense Frequency Allocation Advisory Board; Advisory Group Reliability Electronic Equipment; and Electromagnetic Interference Consultant on the Navy Radio Astronomy Project.

Andre Devot

Chief Engineer, Filtron Company, Inc., Culver City, California

Education: Tufts College, Electrical Engineering, 1936

Experience: 1936-1955 - Chief Engineer, Tobe Deutschmann Corporation; chief of the filter and RF interference division. In charge of all original interference work accomplished for the U. S. Coast Guard, U. S. Navy Bureau of Ships, and U. S. Signal Corps, in suppressing naval equipment, U. S. Army vehicular equipment, and designing interference suppression components during World War II. Consultant to the Canadian Navy on suppression of radio interference. Pioneered radio frequency measurement techniques, and instrumentation, together with the design of components for effective suppression.

1955-Present - Chief Engineer, Filtron Company, Western Division; managed Filtron radio interference systems analysis contracts on the Atlas program. Present engineering staff has radio interference cognizance of the AN/ULD-1 Electronic Reconnaissance System, Polaris Missile Program, AN/USD-7 Electronic Reconnaissance System, BMEWS, and many others.

Mervin H. First

President of RF Interionics, Inc. of Oceanside, New York, manufacturers of Radio Frequency Interference Filters and Capacitors. Ten years in the field of radio frequency interference suppression including testing and suppression of major electronic systems and sub-systems, and interference filter research, design and development. Has authored articles on interference suppression and interference filters.

Was formerly Chief Engineer of the Filter Division of a major manufacturer. Charter member of the PGRFI. Recently elected to a three year term on the Executive Committee of the New York Chapter, PGRFI.

C. J. Fowler

Received B. S. E.E. from University of Pennsylvania in 1943.

1943 through 1946, served in Bureau of Aeronautics as Radar and Communications Maintenance Officer and Radar Instructor. (Lt. Sr. Grade)

Thereafter he joined Research Division of University of Pennsylvania. There his work in the radio interference field included studies of receiving equipments covering 25 cps to 1000 mc and developments to improve detection and indication of noise voltages. Techniques were evolved for measuring noise, calibrating antennas, shielding and simulating noise signals. Mr. Fowler served on military and industrial committees devoted to standardization of noise meter design and measurement techniques. He holds a patent on a resistance-capacitance type of superheterodyne.

C. J. Fowler (cont.)

In 1951, Mr. Fowler helped organize AEL, Inc. and serves as Senior Vice President. He has continued activities in radio interference equipment and design, particularly in the microwave spectrum.

Mr. Fowler is a member of Sigma Tau, Sigma Xi, a Senior member of IRE, and Chairman of the Philadelphia Chapter, Professional Group on Radio Frequency Interference.

James S. Hill

Electronics Engineer

B. S. in E. E. - Case Institute of Technology, 1934 Graduate Study; Cleveland College of Western Reserve University, 1950 - 1952.

James S. Hill at present with Jansky & Bailey, A Division of Atlantic Research Corporation. Project manager on continuing program for interference analysis and development of a method of solution to the interference prediction problem. Project engineer on interference program to develop interference design criteria for electronic systems including communication, navigation, missile guidance, surveillance, and radar. Advisor to propagation study group preparing a comprehensive propagation handbook.

1957-1958 - Previous experience as independent consulting engineer in communications field.

1953-1957 - With Carl E. Smith, Consulting Radio Engineers. Engaged in coverage survey measurements for AM, FM, VHF-TV, and UHF-TV stations; FCC certification of induction and dielectric heaters and industrial electronic equipment; and qualification testing regarding radio interference, types of communications systems.

1950-1953 - With United Broadcasting Company as Research Engineer Chief Engineer of WHKK, WHKC and staff engineer for WHK, B.S. in E.E. Case Institute of Technology and graduate study, - Western Reserve University.

Albert R. Kall

Albert R. Kall has been in the RFI field for 12 years. A native of Philadelphia, he received an A.B. degree in Physics, and B.S. and M.S. degrees in E.E., all at the University of Pennsylvania. He was an instructor in electrical engineering there two years, and at Drexel Institute of Technology for three years.

His industrial experience comprises a total of 19 years, including Bell Telephone Laboratories, radar design and development; The Martin Company, missile radar guidance studies; Electro-Search, Philadelphia, chief engineer on radio interference studies and supervision of construction of special shielded enclosures; and the past ten years as President and Technical Director of Ark Electronics Corp. (formerly Ark Engineering Co.), specializing in problems and studies of radio interference control and electronic compatibility of complex weapons and communications systems, including the fields of special shielding and

Albert R. Kall (cont.)

custom filter design.

His affiliations include the IRE and in particular PGRFI, of which he was secretary for two years, chairman of the Technical Papers Committee and editor of the May 1961 Transactions. His writing activities include several papers presented before past Armour Research Foundation Conferences on RFI Reduction and the 1960 and 1961 Washington Symposia on RFI.

Milton Kant

Milton Kant (S '47 - A '48 - M '55) Engineering Section Head for Radio Frequency Interference Measurements, Sperry Gyroscope Co., Division of Sperry-Rand Corp., Great Neck, New York.

Co-founder of IRE Professional Group on Radio Frequency Interference. Member National Administrative Committee, PGRFI 1957-1961, Chairman, Constitution and By-Laws Committee, Secretary 1960-1961. Chairman, Radio Interference Panel of Aerospace Industries Association.

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Papers - Co-author - "Automatic Instrumentation for Ground Electronic Equipment" - Presented at 1953, IRE Convention. Co-author - "Spurious Radiation Measurements on Radar Set AN/FPS-35" - presented at Sixth Armour Conference.

Edmund V. Kavanaugh

Project Director, Filtron Company, Inc., Culver City, California

Experience: 1943-1956 - Senior Project Engineer, Chief of the Interference Control Unit, Interferics Section, Suppression and General Engineering Branch, Communications Department, Signal Corps Engineering Laboratories, Fort Monmouth.

1956 - Present - Project Director, Filtron Company, Inc., West Coast Division

Edmund V. Kavanaugh (cont.)

During his eighteen years in the RF interference field, Mr. Kavanaugh held such positions as Chief of Interference Control at Fort Monmouth; Project Engineer, Cole Signal Laboratories; Project Engineer, Detroit Signal Laboratory; Engineer, Camp Hood, Texas; Engineer, Signal Corps Laboratory, Fort Monmouth. He has directed many major projects, such as ULD-1 and Polaris Missile. While assigned to the Atlas Missile Project, he was directly responsible to the Project Director in charge of radio interference considerations.

His professional affiliations include service on various committees of the Research and Development Board, Tri-Service Steering Group, Department of Defense, American Standards Association, and the Society of Automotive Engineers.

Charles R. Miller

Mr. Miller, who is a charter and current Chairman of the Utica Chapter of PGRFI, has received degrees from George Washington University and Syracuse University. He was recently awarded a 2-year pin for Government service.

He served five years as a Navy Electronics Technician. In 1945, he joined the District Finder and Countermeasures Branch of the Naval Research Laboratory. In 1953, he transferred to the Rome Air Development Center Countermeasures Laboratory where he contributed to several passive detection techniques.

In February 1957, he transferred to the Interference Branch at RADC. He has generated and directed several large-scale research and development interference analysis programs involving prediction techniques, antenna analysis, investigation of new circuit and component techniques, and data handling.

He has written papers on interference dealing with transmitter and receiver analyses which were delivered at national interference symposiums, the 1959 Chicago Interference Conference and the IRE National Conference in March 1960.

Leonard Milton

President, Filtron Company, Inc., Flushing, New York, an organization devoted to the design and manufacture of components and engineering systems analysis for the radio interference field. Since 1947 Mr. Milton has served as Vice President and Chief Engineer and as President of this organization. Prior to this, from 1939 to 1947, Mr. Milton was in charge of the Filter Division of the Solar Manufacturing Company.

Mr. Milton attended Pratt Institute where he received his electrical engineering education and took graduate studies at Columbia University.

Mr. Milton is one of the original organizers of and is presently serving on the Professional Group on Radio Frequency Interference of the IRE as Vice Chairman, and was recently elected Chairman of the newly-organized Metropolitan Chapter of PGRFI. He is a member of the ASA-C63 Committee on Radio Interference, and is U. S. Delegate to CISPR (an international electro-technical commission on radio interference). Mr. Milton has served

Leonard Milton (cont.)

on many AIEE and IRE committees and is the author of many published articles and has delivered many addresses at national conferences on the subject of radio interference. He holds many U. S. and foreign patents and patents pending on devices and systems for the radio interference and electronics field. Mr. Milton has been actively concerned in the radio interference field since 1939 and has participated in the discussions and promulgations of many of the specifications on radio interference that are in effect today.

John L. Moe

Manager, Dayton Division, Filtron Company, Inc.

For the past 8 1/2 years actively engaged in filter design and RI interference suppression and major systems interference studies. He has directed interference engineering programs on ballistic missile re-entry vehicles flown on Thor-Able, Titan, and Minute Man. He has provided administrative direction at Thule, Greenland, for a signal density study performed by a Filtron engineering team. He has been associated with many of the interference aspects of high powered radars, such as BMEWS, and advanced weapons systems.

Previous experience with Ebasco Services, Inc. as Electrical Engineer on design of switchgear load center power station grounding and lightning protection systems. Performed soil studies and designed and supervised cathodic protection installations for high pressure-natural gas pipe lines. Signal Corps., U.S. Army - Radio Installation Supervisor - Supervised installation of single-sideband receivers, radio-teletype equipment and audio and RF patching facilities.

Education: Pratt Institute, School of Science and Technology Electrical Engineering Certificate.

Harold R. Schwenk

Mr. Schwenk is presently employed as a Senior Engineer by the Sperry Gyroscope Company and is a Group Leader of the RF Interference Measurement and Suppression Group in the Electrical Measurements Laboratory at Sperry. For the past eleven years he has worked on the reduction and measurement of RF interference on Sperry products. Prior to joining Sperry in 1951 he was employed as an Engineer in the electronics field. He attended both the Undergraduate and the Graduate schools at Hofstra College and obtained his BA degree in Physics in 1950. From 1942 to 1946 he served in the U.S. Marine Corps. Before joining the Marines he was employed by the Western Electric Co. and worked in the Bell Telephone Labs in New York.

Mr. Schwenk was instrumental in the organizing of the National PGRFI and served as its first Chairman from 1957 to 1959. He also was the organizer of the New York Metropolitan Chapter of PGRFI and presently holds the position of Vice Chairman in the Chapter. He also has served on a number of committees in PGRFI.

He is a member of IRE, PGRFI and Sigma Pi Sigma.

A. H. Sullivan, Jr.

Director of Advanced Systems Development, Frederick Research Corporation; E. E. Cornell University; Lt. Col. AF Reserve

Senior Member, IRE Vice Chairman, Washington Chapter PGRFI National Chairman, Technical Papers Committee, PGRFI Secretary, National PGRFI Symposiums, 1960, 1961.

Member AIEE, Association for Computing Machinery; American Ordinance Association

Formerly Project Director, C-E-I-R, Inc.; Vice President, Engleman & Co., Inc. Executive Engineer, Bendix Corporation

Author of numerous papers on systems Planning, radio frequency interference, and national defense.

Leonard W. Thomas

Presently employed as staff Electronics Engineer, Electromagnetic Compatibility Analysis Center, Annapolia, Md. This work includes program planning, analysis of current and proposed programs, isolation of common problem areas, identification of critical and controversial points and coordination procedures and programs among the services. Liaison with key management, the military, and industry.

Past experience: Engineer for radio stations WAPI, WJSV and WPFM. From 1942 to 1961 with Bureau of Ships, Navy Department as Radio Engineer, Engineer-in-charge, Senior Electronics Engineer on radio interference including development of instrumentation and specifications. Head of Radio Interference Section and Electronics Standards Section. Active as member of ASA-C63. - Radio and Electrical Coordination Committee. U. S. delegate to several CISPR (International Special Committee on Radio Interference) meetings. BS (EE) from Alabama Polytechnic Institute.

Donald R.J. White

President of White Electromagnetics, Inc., holds B. S. E. E. and M. S. E. E. degrees from the University of Maryland. He has 14 years of professional experience in the fields of communications-electronics systems analysis, and the design of radar, countermeasures, intercept, and radio telescopic systems. He is past Chairman of the 3rd National IRE Symposium on Radio Frequency Interference, Technical Program Chairman for the 2nd RFI Symposium, and past Chairman and Vice Chairman of the Washington Chapter of the Professional Group on RFI. He is a senior member of the IRE, a member of AFCEA, AOA, and Tau Beta Pi.

He has two patents and is the author of 30 technical papers on the subjects of RFI and electromagnetic compatibility, space communications, computer simulation, filter synthesis and design, stripline techniques, and passive detection.
