

Contributors to This Issue

Gastón A. Arredondo, B.S., 1963, M.S., 1966, Ph.D., 1967, University of Iowa; Instructor in Electrical Engineering, University of Iowa, 1963-1967; Bell Laboratories, 1967-1977. Through 1969, Mr. Arredondo was involved in the analysis and design of phased array antennas for electronically steered radars. From 1970 to 1977, he was a member of the Mobile Communications Laboratory, where he worked on voice and data transmission requirements. He was appointed supervisor in 1975 with responsibilities which included transmission requirements and system standards for the Advanced Mobile Phone Service. Since 1977, he has been the general manager of the Empresa Nacional De Telecomunicaciones in LaPaz, Bolivia. Member, Sigma Xi, Tau Beta Pi, and Eta Kappa Nu.

Kanwar J. S. Chadha, B.E. (Honors), 1967, Punjabi University; M.A.Sc. (Control Systems), 1969, University of Toronto; Ph.D. (Systems Engineering), 1973, Case Western Reserve University; Bell Laboratories, 1973—. Mr. Chadha has worked on the development of system requirements for AMPS. He has worked on the design and implementation of the call processing software for AMPS in the mobile telephone switching office. He currently supervises the Remote Switching System Features Group, which is responsible for designing call processing features in No. 1/1A/2B ESS.

Gerald C. DiPiazza, B.S.E.E., 1960, Manhattan College; M.S.E.E., 1962, New York University; Bell Laboratories, 1960—. After microwave circuit and signal processing development activities on the Nike program, Mr. DiPiazza supervised propagation studies and field test simulations for the Advanced Mobile Phone Service. In 1977, he became head of a department engaged in the development and support of electronic power supplies and automated test systems. Member, IEEE, Eta Kappa Nu, Tau Beta Pi.

Nathan Ehrlich, B.S. New York University, 1944; B.E.E. Cornell University, 1949; Bell Laboratories, 1949—. Mr. Ehrlich's work has included development of moving target indicators, missile guidance systems, investigations of nuclear radiation effects on electronic equip-

ment, development of computer controlled display systems, and of command and control systems. Since 1975, he has been concerned with the design of logic and control equipment for the Advanced Mobile Phone Service. Member, National Society of Professional Engineers; Senior Member, IEEE.

John C. Feggeler, M.E., 1960, Stevens Institute of Technology; M.E.E., 1962, New York University; D.Sc. (E.E.), 1968, Stevens Institute of Technology; Bell Laboratories, 1960—. On joining Bell Laboratories, Mr. Feggeler became involved in a number of systems engineering projects related to the Safeguard system. Since 1974, he has been a member of the Mobile Systems Engineering Department, where his principal activities have been in the areas of radio transmission and signal processing. Member, IEEE, IEEE Communications Society, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

Reed E. Fisher, B.S.E.E., 1958, Penn State University; M.E.E., 1961, New York University; Bell Laboratories, 1958—. From 1958 through 1964, Mr. Fisher was engaged in the design and development of microwave filters, amplifiers, and diode switches. From 1964 to 1969, he studied high-speed microwave-carrier pulse techniques exploiting Gunn-effect devices. Since 1969, he has been supervisor of the AMPS Radio Design Group. Member, IEEE.

Zachary C. Fluhr, B.E.E., 1964, Cornell University, S.M.E.E., 1965, Massachusetts Institute of Technology; M.B.A., 1969, University of Chicago; Bell Laboratories, 1964-1977; Western Electric, 1977—. From 1965 to 1968, Mr. Fluhr worked on software development of the No. 1 ESS, concentrating on automatic maintenance of peripheral units and techniques for improving system capacity. In 1969 he became a supervisor and directed the development of support software tools for the 1A Processor, a high-speed high-throughput combination central control and storage for electronic switching use. In 1972 he became associated with the AMPS development, supervising various groups performing system and software design. He is currently a Product Manager at Western Electric responsible for planning activities associated with local switching products. Member, Tau Beta Pi, Eta Kappa Nu, Sigma Xi.

Duane L. Huff, B.S.E.E., 1959, University of Maine; M.E.E., 1961, New York University; Bell Laboratories, 1959—. Until 1976, Mr. Huff

was involved in the design, development, test, and evaluation of various radar systems associated with Bell Laboratories ballistic missile defense efforts. He is currently responsible for test planning and system evaluation activities under way in the trial of the Chicago developmental AMPS. Member, Tau Beta Pi.

Charles F. Hunnicutt, B.S.E.E., 1965, Worcester Polytechnic Institute; M.S.E.E., 1968, Rensselaer Polytechnic Institute; Bell Laboratories, 1968—. Mr. Hunnicutt initially worked on the system design and software architecture for an exploratory parallel processor known as PEPE for use in radar data processing. Since 1974, he has supervised the development of the AMPS call processing software. Currently, he is supervisor of the AMPS Call Processing and Systems Group. Member, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

Verne H. MacDonald, B.E., 1964, M.S., 1967, Ph.D., 1970, all electrical engineering, Yale University; one year's graduate study, Electrical Engineering Department, University of Edinburgh, Scotland; Bell Laboratories, 1966 (summer), 1970—. Since 1970, Mr. MacDonald has been engaged in AMPS system-design work, with an emphasis on radio-coverage and traffic-engineering problems. He is currently concerned with rules and standards for cellular systems. Member, Tau Beta Pi; New Jersey Professional Engineer's license.

Stephen R. Peck, B.S. (Science), 1969, Pennsylvania State University; M.S. (Computer Science), 1970, Pennsylvania State University; Bell Laboratories, 1970—. Mr. Peck initially worked on various aspects of the design, development, and testing of the SAFEGUARD multiprocessor operating system. Since 1974, he has been involved in AMPS system software and hardware development. Currently, he is a member of the AMPS Maintenance Design Group. Member, IEEE.

Andrew Plitkins, B.S.E.E., 1963, Washington State University; M.S.E.E., 1965, New York University; Bell Laboratories, 1963—. Mr. Plitkins has been engaged in RF circuit design for application in phased array radars, thin-film microwave circuit design and logic design. More recently, he has participated in RF propagation studies related to the utilization of the 800 to 900 MHz spectrum for mobile communications. He is presently supervisor of the Mobile Communications Laboratory's Test Planning and Analysis Group concerned with field modeling and evaluation of the Advanced Mobile Phone Service. Member, IEEE, Tau Beta Pi, Sigma Tau.

Philip T. Porter, B.A. (Physics), 1952, and M.A. (Physics), 1953, Vanderbilt University; Bell Laboratories, 1953—. Mr. Porter initially participated in early development planning for electronic station sets and *PICTUREPHONE*® visual telephone service; he also did systems engineering work on Autosevocom. In the mobile radio field, he has been involved in development of *BELLBOY*® paging, the Improved Mobile Telephone System, the Metroliner system, and others (including early planning studies leading to AMPS). From 1971 to 1977, he supervised a group involved in systems planning of network and mobile control logic for AMPS. He is currently responsible for studying other advanced system proposals. Member, Phi Beta Kappa.

John Ineson Smith, B.S. (electrical engineering), 1949, University of Michigan; M.S. (electrical engineering), 1954, Massachusetts Institute of Technology; Ph.D. (electrical engineering), 1963, Purdue University; Bell Laboratories, 1965—. As a supervisor in the Mobile Systems Development Department, Mr. Smith is currently involved in the development of radio frequency transmitters, amplifiers, and data systems for use in the Advanced Mobile Phone Service system now under test by the Bell System. He is active in the Microwave Theory and Techniques Group and Vehicular Technology Group of the IEEE. Member, Sigma Xi, Sigma Pi Sigma, Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi.

John Tebes, Jr., B.S., 1966, DePaul University; M.S., 1969, Ph.D., 1972, Purdue University; Bell Laboratories, 1972—. Mr. Tebes was initially engaged in systems engineering studies of private communications networks. Since 1975, he has been involved in the system design and call processing of AMPS. At present, he is concerned with ESS system program development. Member, Phi Eta Sigma, Sigma Xi.

S. H. Tsiang, B.S.E.E., 1947, University of Nanking, China; M.S.E.E., 1949, Carnegie Institute of Technology; Union Switch and Signal, 1949-1956; Bell Laboratories, 1956—. Mr. Tsiang's early work involved maintenance program design for the Morris experimental electronic switching system. He developed the dictionary technique to locate trouble in ESS. In 1961, he started working on No. 1 ESS. The work involved software design, test facility development, program administration, and field support. Since 1974, he has been engaged in Advanced Mobile Phone Service system development. Currently he is in charge of a group responsible for fault detection, recovery, and diagnostic program design of this system.

J. Thomas Walker, B.S.E.E., 1965, and M.S.E.E., 1966, Purdue University; AT&T, 1972-1974; Bell Laboratories 1966-1972, 1974-. Through 1972, Mr. Walker conducted systems engineering studies of PBX and key telephone systems. In 1972 he transferred to AT&T for a two-year assignment involving technical policy planning studies. In 1974, he returned to Bell Laboratories as a supervisor in the Mobile Communications Laboratory. Mr. Walker is currently supervising a group whose responsibility is to establish audio transmission and service quality requirements for cellular mobile telephone systems.

Theodore K. Wingard, B.S.M.E., 1958, Clemson University; M.S.M.E., 1964, North Carolina State University; Western Electric Company, 1958-1960; Bell Laboratories, 1960-. While at Western Electric and initially at Bell Laboratories, Mr. Wingard was involved in design activity for Nike Hercules. From 1963 to 1972, he worked on the airborne control system design for the Sprint missile. Since 1972, he has been supervisor of the Physical Design Group responsible for the physical design of the AMPS equipment. Member, Tau Beta Pi, Phi Kappa Phi, Sigma Xi.

W. Rae Young, B.S. (Electrical Engineering), 1937, University of Michigan; Bell Laboratories, 1937-. Mr. Young has held various assignments involving systems planning, studies, and generation of system requirements. The subjects include telegraph, data, telephone switching, military communications systems, and radio systems. In 1957 he became head of a department responsible for telegraph and data systems. Later assignments included the UNICOM project, toll switching studies, and government communications studies. Since 1970, he has been head of a mobile-radio systems department, concerned with planning improvements in *BELLBOY*® and IMTS systems, as well as with planning the AMPS system layout, architecture, and requirements. Member, Eta Kappa Nu, Sigma Xi, and Fellow, IEEE.

G. I. Zysman, B.E.E., 1959, Cooper Union; M.S.E.E., 1962, Ph.D. (Electrophysics), 1966, Polytechnic Institute of Brooklyn; Hazeltine Corp., N.Y., 1959-1960; Polytechnic Institute of Brooklyn, 1965-1966; Bell Laboratories, 1966-. Mr. Zysman's early work has been in the areas of microwave circuits and phased array antennas for radar applications. His more recent work has been in the area of mobile telephony, where he was responsible for the instrumentation of various UHF propagation experiments, the Cellular Test Bed control architecture, and data acquisition software for the Advanced Mobile Phone Service project. He is currently supervisor of the AMPS Cellular Test Bed Operations Group. Member, IEEE.

