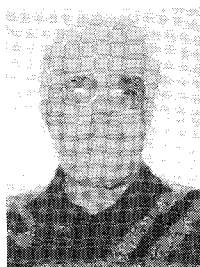


## Associate Editors



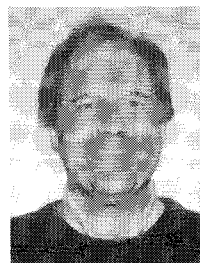
**JOHN C. ADAMS JR.** is Director of the Applied Technology Department for the AEDC Group. He has spent his entire career with Sverdrup, beginning as a Research Supervisor in AEDC's von Karman Gas Dynamics Facility in 1966. He progressed through management and technical positions including Supervisor of VKF's Project Support and Special Studies Section and Applied Computational Mechanics Section; Director of the Computer Service Center and Senior Staff Scientist for Technology Group; and Technical Area Supervisor for Propulsion Technology at AEDC. Prior to his assignment as Director of the Applied Technology Department in 1995, he served as Manager of the Technology Branch in the Aeropropulsion Programs Department. He is a recognized authority on computational fluid dynamics, gas dynamics, supersonic and hypersonic aerodynamics, thermodynamics, and complex boundary layer predictions, and has authored or co-authored more than 70 reports and technical papers. He is an AEDC Fellow and an Associate Fellow of AIAA. He has been a member of AIAA's Fluid Dynamics, Atmospheric Flight Mechanics, and Propellant and Combustion Technical Committee. He is also a member of ASME and NMA. He received the General H. H. Arnold Award for outstanding contributions in three-dimensional turbulent boundary-layer theory and the NASA Technical Award for outstanding work in large perturbation flow field analysis and simulation for supersonic inlets. He received his Ph.D., M.S., and B.S. in Mechanical Engineering from North Carolina State University in 1966, 1964, and 1962, respectively.



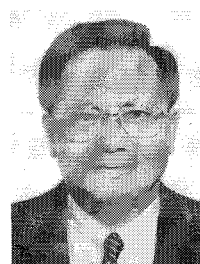
**HUGH ANDERSON** received his B.S. degree (1954) in Physics from Iowa State University and his Ph.D. degree (1961) in Physics from the California Institute of Technology. His experience has been in the field of experimental plasma physics with emphasis in measurement of ionizing radiation in space, auroral particles and currents, ionosphere-magnetosphere coupling, beam-plasma interactions and also in the design and building of instrumentation for space measurements. He was involved with the Ranger and Mariner interplanetary spacecraft as well as recent Shuttle-based experiments. He has authored over 40 technical publications in these areas and since 1981 he has been employed by Science Applications International Corporation.



**IAIN D. BOYD** received a B.S. in Mathematics (1985) and a Ph.D. in Aeronautics and Astronautics (1988) from the University of Southampton in England. He worked for four years as a contractor at NASA Ames Research Center in the area of rarefied gas dynamics. In particular, he participated in the development of nonequilibrium collision models and efficient numerical algorithms for computing low-density flows using Monte Carlo methods. Dr. Boyd is an Associate Professor in Mechanical and Aerospace Engineering at Cornell University, where he teaches aerodynamics and physical gas dynamics. His current research interests include hypersonics, electric propulsion, and materials processing. He has authored, or co-authored, over 40 technical papers.



**RUSSELL M. CUMMINGS** graduated from California Polytechnic State University with a B.S. and M.S. in Aeronautical Engineering in 1977 and 1985, respectively, before receiving his Ph.D. in Aerospace Engineering from the University of Southern California in 1988. Before joining the Aeronautical Engineering Department at Cal Poly in 1986 he worked for Hughes Aircraft Company in the Missile Systems Group as a missile aerodynamicist from 1979 through 1986. He completed a National Research Council postdoctoral research fellowship at NASA Ames Research Center in 1990, working on the computation of high-angle-of-attack flowfields in the Applied Computational Fluids Branch. He was named an AIAA Associate Fellow in 1990 and received the AIAA National Faculty Advisor Award in 1995. Dr. Cummings is currently a Professor in the Aeronautical Engineering Department at Cal Poly.



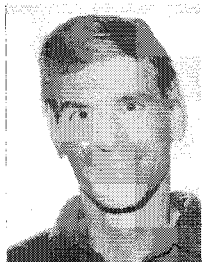
**TONY C. LIN** received his B.S. degree (1962) from National Taiwan University in Mechanical Engineering and his Ph.D. degree (1969) from Polytechnic Institute of Brooklyn in Aerospace Engineering. He has been employed since 1979 by TRW/BMD and is currently a department manager. His primary fields of interest have been aerothermodynamics, flight dynamics, CFD, and electromagnetic wave propagation. He has published over 40 technical articles in these areas.



**FREDERICK H. LUTZE** received a B.S. in Mechanical Engineering with an Aeronautical option from Worcester Polytechnic Institute in 1959. After working a year in the area of inertial guidance systems with Bendix Corporation in Teterboro, NJ, he returned to school to get his M.S. and Ph.D. in Aerospace Engineering at the University of Arizona in 1967. He has been teaching and doing research at Virginia Polytechnic Institute and State University for the past 30 years. During this time he has taught courses at both the graduate and undergraduate level in the areas of aircraft performance, aircraft stability and control, vibrations aerodynamics, optimization techniques, spacecraft dynamics, astrodynamics, and control, and has participated in a wide range of research projects sponsored by NASA, the Navy, and the Air Force. These include trajectory optimization in both atmospheric and space environments, evasive maneuvering in both atmospheric and space environments, vehicle guidance and control, and experimental wind tunnel tests. While at Virginia Tech, he has served as consultant for several companies in the areas of space mechanics, atmospheric flight mechanics, dynamics, and trajectory optimization. He is a member of the American Astronautical Society, a past member of the AIAA Atmospheric Flight Mechanics Technical Committee, currently Vice President of Sigma Gamma Tau, and is an Associate Fellow in the AIAA.



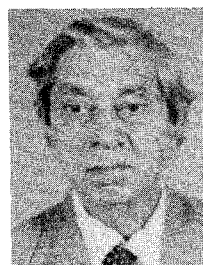
**JAMES A. MARTIN** graduated from West Virginia University in 1966 with a B.S. in Aerospace Engineering. He completed his M.S. in Aeronautics and Astronautics in 1967 at the Massachusetts Institute of Technology and returned for the Engineer of Aeronautics and Astronautics professional degree in 1969. He completed his D.Sc. in Flight Sciences from George Washington University in January 1982. His work at NASA Langley Research Center has been on advanced Earth-to-orbit transportation, including trajectory analysis, vehicle sizing, rocket and air-breathing propulsion, and cost estimation. Dr. Martin became an Associate Professor of Aerospace Engineering at the University of Alabama in 1991, where he teaches design and propulsion.



**FRANK MILOS**, Research Scientist at NASA Ames Research Center, received his B.S. and M.S. in Chemical Engineering from the Illinois Institute of Technology in 1978 and 1980, respectively, and his Ph.D. in Chemical Engineering from Stanford University in 1986. Before joining NASA in 1989, he worked at Aerotherm Corporation, primarily in the areas of hypersonic boundary layer chemistry and thermal protection system materials, response, and sizing. At NASA Ames he has worked in the Aerothermodynamics, Arc Jet Research, and Thermal Protection Branches. His recent work has been on heatshield response of the Galileo probe, technology development for CFD-based full-body TPS sizing of hypersonic vehicles for Access to Space, a theory for multicomponent ablation, and arcjet modeling. He is author or coauthor of over 20 AIAA conference and journal papers.



**EARL A. THORNTON** became Professor of Aerospace Engineering at the University of Virginia in the fall of 1989. Prior to that time, he was a visiting scholar at the Texas Institute of Computational Mechanics at the University of Texas at Austin. From 1969 to 1987 he was a member of the faculty of the Mechanical Engineering and Mechanics Department at Old Dominion University. He received a B.S. degree in Engineering Mechanics from Virginia Polytechnic Institute and State University (VPI&SU) in 1959, an M.S. degree from the University of Illinois in Theoretical and Applied Mechanics in 1961, and a Ph.D. degree in Engineering Mechanics from VPI&SU in 1968. For most of his career he has been involved in interdisciplinary research on flow, thermal, and structural behavior of space structures and high-speed flight vehicles. Professor Thornton is a past member of the Thermophysics and Structures Technical Committees, currently member of the History TC. The author of over 100 engineering publications, he is co-author of the text *The Finite Element Method for Engineers*. He is the editor of two volumes in the AIAA Progress in Astronautics and Aeronautics series, and he is the author of a new book, *Thermal Structures for Aerospace Applications*, to be published in the AIAA Educational series.



**IRWIN E. VAS** has been employed by The Boeing Company since 1987. He received his B.M.E. and B.A.E. from the Catholic University of America, M.S.E. from Princeton University, and Ph.D. in Aeronautics and Astronautics from New York University. He worked in supersonic and hypersonic experimental gas dynamics at Princeton University for twenty five years. The high Reynolds number supersonic flows dealt primarily with two and three dimensional shock wave boundary layer interactions. The hypersonic flows created in helium and heated nitrogen facilities dealt with two dimensional and axially symmetric phenomena of sharp and blunted shapes including incidence effects. On leaving Princeton University, he joined the Solar Energy Research Institute (currently National Renewable Energy Laboratory) as Program Manager for Wind Energy. He later joined Flow Industries/Flowind Corporation in Seattle, a company that designed and manufactured vertical axis wind turbines. He is currently working on advanced space transportation technologies and systems for the Defense and Space Group of The Boeing Company. He has published approximately 100 technical papers in the area of gas dynamics, wind energy and space technologies. He is an Associate Fellow of the AIAA.