

## Associate Editors



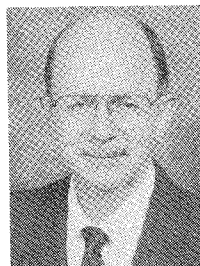
**JOHN C. ADAMS** is an internationally recognized expert with over 28 years experience in hypersonic aerodynamics/aerothermodynamics and compressible laminar/turbulent boundary layers. He is acknowledged as a founding originator of Computational Fluid Dynamics (CFD) techniques applied in support of ground test programs at the AEDC. In 1992, Dr. Adams was inducted as the 20th AEDC Fellow for his technical/managerial leadership and personal research contributions to the founding, advancement, and application of Computational Fluid Dynamics at the AEDC. Dr. Adams is manager of the technology branch at Sverdrup Technology, Inc., AEDC Group. He provides department-level management guidance for five Technology Branch sections that include Testing Technology, CFD, Diagnostics, Foreign Technology, and Diagnostics Development. He is responsible for the Propulsion Technology Program, including definition, marketing, execution, reporting, and financial control. He also provides technical guidance in fields of expertise, including hypersonic flow fields, laminar and turbulent boundary layers, chemically reacting flows, and hypersonic ground test facilities. Dr. Adams is an Associate Fellow of AIAA. Dr. Adams has authored over 60 published papers and journal articles as well as 16 AEDC technical reports involving CFD development and application to flows of interest in AEDC ground testing.



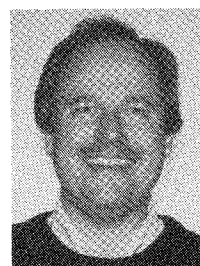
**HUGH ANDERSON** received his B.S. degree (1954) in Physics from Iowa State University and his Ph.D. degree (1961) in Physics from the California Institute of Technology. His experience has been in the field of experimental plasma physics with emphasis in measurement of ionizing radiation in space, 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 Assistant 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.



**RONALD K. CLARK** is a senior research engineer in the Materials Division at NASA Langley Research Center. He conducts research on oxidation characteristics and hydrogen-materials interaction characteristics of advanced titanium-aluminum alloys, and oxygen/hydrogen and thermal control coatings for materials in hypersonic flight vehicle applications. He received his B.M.E. from the University of Florida in 1962, his M.A.E. from the University of Virginia in 1968, and his Ph.D. in Mechanical Engineering from Virginia Polytechnic Institute and State University in 1972. He is author or co-author of more than 80 refereed journal articles and conference proceedings. He is the holder of two patents. He has served on the AIAA Materials Technical Committee.



**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 the Chairman and Professor of the Aeronautical Engineering Department at Cal Poly.

**TONY C. LIN** received his B.S. degree (1966) 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 1980 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 publications in these areas.



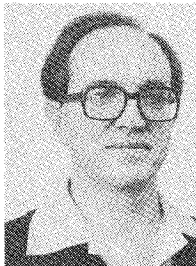
**FREDERICK H. LUTZE** received a B.S. in Mechanical Engineering with an Aeronautical option from Worcester Polytechnic Institute in 1959. After working a year in the area of inertial guidance systems with Bendix Corporation in Teterboro, NJ, he returned to school to get his M.S. and Ph.D. in Aerospace 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 27 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. During this time he 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 has participated in several short courses for the Navy presenting the material on aircraft flight mechanics and control. He is a member of the American Astronautical Society, a past member of the AIAA Atmospheric Flight Mechanics Technical Committee and is an Associate Fellow in the AIAA.



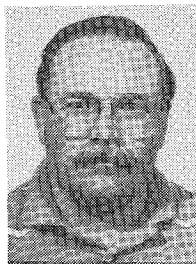
**JAMES A. MARTIN** graduated from West Virginia University in 1966 with a B.S. in Aerospace Engineering. He completed his M.S. in Aeronautics and Astronautics in 1967 at the Massachusetts Institute of Technology and returned for the Engineer of Aeronautics and Astronautics professional degree in 1969. 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 recently became Associate Professor of Aerospace Engineering at the University of Alabama, where he teaches design and propulsion.



**EARL A. THORNTON** assumed the position of Professor of Mechanical and 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, a position he had held since 1987. He received a B.S. degree in Engineering Mechanics from Virginia Polytechnic Institute and State University 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. From 1969 to 1987 he was a professor in the Mechanical Engineering and Mechanics Department at Old Dominion University. At ODU, Professor Thornton had a long association with the NASA Langley Research Center where he was engaged in a variety of projects. Since 1978 he has been heavily 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 Committee. He is a current 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 has directed short courses on thermal stresses and thermoviscoplasticity for AIAA.



**ALFRED L. VAMPOLA** received a Ph.D. in Physics in 1961 from St. Louis University in the field of low energy nuclear physics. For 28 years, he was active in space research at the Space Sciences Laboratory of The Aerospace Corporation, flying 34 experiments on 18 satellites and 3 rockets during that period. He has been engaged in experimental studies of magnetospheric particle morphology, wave-particle interactions, modeling, and environmental effects on satellites. He has been a member of the Space Sciences and Astronomy Technical Committee from 1978–1980, 1983–1985, and 1994–1996. He has been organizing sessions for the Aerospace Sciences meetings since 1979, plus for other AIAA meetings. From 1984 through 1987 and again starting in 1990, he has served as an Associate Editor of the *Journal of Spacecrafts and Rockets*. Prior to and subsequent to his tenures as Associate Editor, he also organized and edited special topical issues for the *Journal of Spacecraft and Rockets* covering Spacelab experiment results, spacecraft charging, SCATHA spacecraft engineering results, solar cycle effects on the space environment, and the CRRES and CLEMENTINE missions. He was a Visiting Fellow on the staff of the University of Otago in Dunedin, New Zealand in 1986 and was a Guest Researcher at the Max Planck Institut für Aeronomie at Lindau, Germany in 1991. He has published over fifty papers in refereed journals and conference proceedings, is a member of the American Geophysical Union, and is an Associate Fellow of the American Institute of Aeronautics and Astronautics. He has served on a number of committees in the field of spacecraft interactions and the space environment, including AIAA, Air Force, and NASA ad hoc committees. He retired from Aerospace Corporation in 1990 to devote more time to basic magnetospheric physics research and is also an independent consultant in the field of environmental effects on spacecraft.



**K. JAMES WEILMUNSTER** has been employed by NASA Langley Research Center since 1964. He received his B.S.A.E. from Mississippi State University and a M.S. in Mechanical Engineering from North Carolina State University. He began his career at NASA as an experimentalist in hypersonic impulse facilities. For the past twenty years he has concentrated on the application of computational fluid dynamics to hypersonic flow phenomenon. He has been responsible for the development and application of codes for the analysis of flow about vehicles such as the Shuttle Orbiter, the AFE and the HL-20 and is currently involved in the X-33, X-34 Access to Space program. He has published approximately 50 papers in the areas of experimental and computational hypersonic aerothermodynamics, computational fluid dynamics, and grid generation. He is an Associate Fellow of the AIAA.