

## A Regretful Good-bye, an Enthusiastic Welcome

I HAVE decidedly mixed feelings as I write this editorial saying “thank you” to Donald C. Fraser for his more than 20 years of service to the Institute’s journals. Dr. Fraser initially became involved in AIAA publications in 1970, when he accepted an appointment as an Associate Editor for the *Journal of Spacecraft and Rockets*. He was named Editor-in-Chief of *JSR* in 1975 and was my boss in that job, since I was then an Associate Editor for the journal. Then in 1978 the *Journal of Guidance, Control, and Dynamics* was formed (then titled simply the *Journal of Guidance and Control*), and Dr. Fraser was appointed as its first—and to this date only—Editor-in-Chief. (Once again I followed in his footsteps to succeed him as Editor-in-Chief of *JSR*.)

Now his confirmation as Deputy Under Secretary of Defense for Acquisition, as he explains in his editorial, has made it impossible for him to continue in his present journal post. He has every right, as he steps down, to take pride in his development of *JGCD* from its inception into what many now consider to be the finest international journal in its field. We are indebted to him for his leadership.

I know Dr. Fraser will miss his work on the journal, which he has carried out so conscientiously over the years. The Associate Editors, reviewers, and authors will certainly miss

him, too, although they may have been heard to grumble on occasion over his difficult-to-achieve quality and scheduling standards. On the positive side, he will continue to serve the publications of the Institute as a member of the AIAA Publications Committee, which oversees policies for all of the Institute’s journals and books, as well as its technical information services. I personally look forward to working with him in that capacity.

We are very fortunate that Kyle T. (Terry) Alfriend has agreed to succeed Dr. Fraser in the post of Editor-in-Chief. Dr. Alfriend’s name is not new to the masthead; he served admirably as an Associate Editor of *JGCD* from 1980 through 1982, and he has been an enthusiastic participant in the technical activities of AIAA for many years. His background and qualifications will continue to attract the top papers in the field to the journal, and I am grateful that he has accepted this appointment.

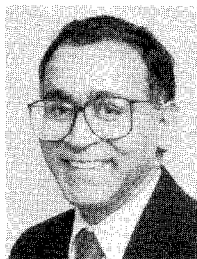
The AIAA Publications Committee and AIAA Board of Directors join me in welcoming Dr. Alfriend. We offer him our support and wish him well in this important undertaking.

Paul F. Holloway  
*AIAA Vice President—Publications*

## Associate Editors



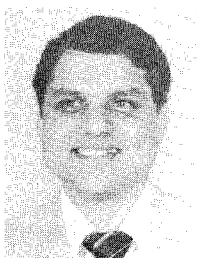
**DOMINICK ANDRISANI, II**, is an Associate Professor in the School of Aeronautics and Astronautics at Purdue University. He received his B.S. degree in aeronautical engineering at the Rensselaer Polytechnic Institute in 1970 and the M.S. and Ph.D. degrees in electrical engineering at the State University of New York at Buffalo in 1975 and 1979, respectively. He has worked at NASA Langley Research Center (1970–1972) and at Calspan Advanced Technology Center (1972–1980). He has been at Purdue University since 1980. He is a senior member of the AIAA and is a member of the Institute of Electrical and Electronics Engineers, the Institute of Navigation, and the Association of Unmanned Vehicle Systems. He is a past member of the AIAA Atmospheric Flight Mechanics Technical Committee and former treasurer of the Central Indiana Section of the AIAA. His technical specialization is in the area of flight dynamics and control of aircraft and helicopters. His current research interests include the design of flight control systems to achieve satisfactory flying qualities and the design of aircraft tracking systems.



**SIVA S. BANDA** received his B.S. degree in electrical engineering from Regional Engineering College, Warangal, India, in 1974 and his M.S. degree in aerospace engineering from the Indian Institute of Science in 1976. He received another M.S. degree in systems engineering from Wright State University in 1978 and his Ph.D. in aerospace engineering from University of Dayton in 1980. Since 1981 he has been working as an Aerospace Engineer at Wright Laboratory, Wright-Patterson Air Force Base, Ohio. He has authored or co-authored more than 75 publications in the areas of multivariable control theory and application to flight systems. He has received numerous awards from the U.S. Air Force for scientific achievement. He has served as a member of the AIAA Guidance, Navigation, and Control Technical Committee, the Board of Directors of the American Automatic Control Council, and Chairman of the AIAA Awards Committee. He has been an Adjunct Associate Professor at Wright State University and at University of Dayton. He is listed in "Who's Who in Aviation and Aerospace," and "American Men and Women of Science." He is a Fellow of Wright Laboratory and is an Associate Fellow of AIAA.



**CARL HUBERT** received a B.S. in engineering science from the State University of New York at Stony Brook in 1970, and M.S. and Ph.D. degrees in space mechanics from Cornell University in 1973 and 1980, respectively. In 1975, Dr. Hubert joined the technical staff of RCA's Astro-Electronics Division (now General Electric's Astro-Space Division). He was Astro's Manager of Control and Dynamics Analysis from March 1981 through March 1991. In April 1991, he was appointed to the position of Division Fellow. Dr. Hubert has contributed to the design and analysis of several dozen communications, scientific, meteorological, and navigation satellites. These include GE's Series 3000, 4000, 5000, and 7000 communications satellites, the Advanced Communications Technology Satellite, the U.S. Air Force's DMSP Block 5D-2 meteorological satellites, the National Oceanographic and Atmospheric Administration's TIROS satellites, Landsat 6, Dynamics Explorer, the Global Geospace Science spacecraft, Mars Observer, and the next-generation Global Positioning System satellite. Dr. Hubert's technical work has included attitude maneuvers, the dynamics of appendage deployments, passive and active motion damping, controlling spacecraft with flexible structures, and the dynamics and control of satellites with on-board liquids. He has authored nine papers on spacecraft attitude dynamics and control and holds six U.S. patents covering spacecraft attitude acquisition and control techniques. He is an Associate Fellow of the AIAA.



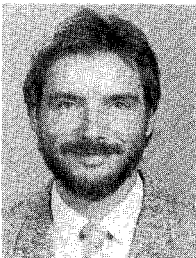
**SURESH M. JOSHI** received the Ph.D. degree in electrical engineering from Rensselaer Polytechnic Institute, Troy, New York, in 1973. Since 1973, he has been at NASA Langley Research Center, Hampton, Virginia, where he is presently a Senior Research Scientist. He has also served as an adjunct or research faculty member of three universities. His research interests include various aspects of control theory and applications to aerospace systems, in particular, to large space structures. He is the author of the book *Control of Large Flexible Space Structures* (Berlin, Springer-Verlag, 1989), and the author or co-author of several papers. He is an Associate Fellow of the AIAA, a Senior Member of the IEEE, and a member of the ASME. He is presently an elected member of the IEEE-Control Systems Society's Board of Governors. He is listed in several *Who's Who* publications.



**DON MACKISON** was born in Denver, Colorado, June 7, 1936. He was educated at Denver University (B.A., mathematics) and Colorado University (M.S., Ph.D., controls and systems). His career includes employment at Johns Hopkins University, Applied Physics Laboratory; National Oceanic and Atmospheric Administration, Space Environment Laboratory; and Ball Aerospace, where he was involved in a variety of satellite programs. He is currently teaching in the Aerospace Engineering Sciences Department of the University of Colorado. His research interests include optimal control and estimation theory, and their application to aerospace problems, including satellite orbit and attitude determination and control, autonomous navigation, and space systems operations. Dr. Mackison is an Associate Fellow of the AIAA, and has served as Vice Chairman of the Rocky Mountain Section (1985–1991); as a member of the Guidance, Navigation, and Control Technical Committee (1989–1992); and as a member of the Applications Advisory Board of the *Journal of Guidance, Control, and Dynamics* (1989–1992). He was named Engineer of the Year by the Rocky Mountain Section, AIAA, for 1984–1985.



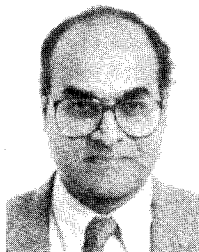
**F. LANDIS MARKLEY** received his B.S. in engineering mechanics from Cornell University and his Ph.D. in theoretical physics from the University of California, Berkeley. Since 1985 he has been at NASA Goddard Space Flight Center and is currently Assistant Head, Guidance and Control Branch. He has also been associated with the Naval Research Laboratory, Computer Sciences Corporation, and on the faculty at Williams College. His specialties are attitude control, estimation theory, and autonomous navigation. He has published numerous papers and reports in these areas. Dr. Markley has served in the past as an Associate Editor of the *Journal of Guidance, Control, and Dynamics* and the *American Journal of Physics*, and he is an Associate Fellow of the AIAA.



**KENNETH D. MEASE** is an Assistant Professor of Mechanical and Aerospace Engineering at Princeton University. He received his B.S. from the University of Michigan and his M.S. and Ph.D. from the University of Southern California. He worked previously in the Navigation Section of the Jet Propulsion Laboratory. His research centers on the application of optimal and nonlinear control theories, perturbation methods, and dynamical systems theory to aerospace vehicle trajectory design, guidance, navigation, and control. He has contributed to the areas of aeroassisted orbital transfer, low-thrust orbital transfer, and ascent and entry guidance. He is an Associate Editor for the *Journal of Astronautical Sciences* and an Associate Fellow of the AIAA.



**ROBERT G. MELTON** received his B.S. in physics from Wake Forest University in 1976 and his M.S. in physics (1979) and Ph.D. in engineering physics (1982) from the University of Virginia. He joined the Aerospace Engineering Department of the Pennsylvania State University as Assistant Professor in 1981, and became Associate Professor in 1987. His research has involved attitude control of multibody spacecraft, optimal detumbling of space stations, dynamics of gyro-controlled spacecraft via conjugate momentum methods, control of flexible space structures using embedded fiber optic sensors, error analysis for finite burn ascent trajectories, perturbation analysis of low-thrust orbital transfers, and the dynamics and control of large articulated spacecraft in low Earth orbit. Over the past nine years, he has also served as a consultant in several of these areas. Professor Melton has taught courses in orbital mechanics and attitude control, spacecraft design, dynamics and control systems, mechanics of materials, astrodynamics, and advanced spacecraft dynamics, in addition to a new course in space science and technology that is intended for nontechnical audiences. An Associate Fellow of the AIAA, he has served on its Astrodynamics Technical Committee and on the *Journal of Guidance, Control, and Dynamics* Applications Advisory Board. Dr. Melton has published papers in the leading technical journals, and has reviewed numerous papers for these journals as well. He is a member of the American Astronautical Society (and currently serves on its Space Flight Mechanics Technical Committee), Sigma Xi (Scientific Research Society), and Sigma Pi Sigma (Physics Honor Society).



**P. K. MENON** is currently a visiting scientist on leave from the School of Aerospace Engineering, Georgia Institute of Technology, Atlanta. He received a Ph.D. in aerospace engineering from Virginia Polytechnic Institute and State University, a master's degree in aeronautical engineering from the Indian Institute of Science, and a bachelor's degree in mechanical engineering from Osmania University. Dr. Menon's professional experience includes nine years in the aerospace industry as a research scientist, five years at universities as a faculty member, and three years with NASA as a visiting scientist. His primary research interests are the application of feedback linearization theory, optimal control theory, differential games, and singular perturbation theory to control and guidance laws for helicopters, high performance aircraft, missiles, and spacecraft. His recent research was focused on vision-based guidance and navigation of rotorcraft. He has authored over 30 papers in archival journals and has presented over 60 papers at various conferences on these topics. He has also been active in organizing technical sessions and short courses on aerospace vehicle guidance at AIAA and American Control conferences.



**STEPHEN OSDER** is currently Department Manager for Flight and Fire Control at McDonnell Douglas Helicopter Company. He has a B.E.E. degree from City College of New York and an M.S. in electrical engineering from Johns Hopkins University. He joined McDonnell Douglas in 1985 as Chief Scientist for Avionics and Controls, and has been responsible for advanced development in rotorcraft flight control, fire control, navigation, and related Avionics Systems. He spent many years at Sperry Flight Systems, where he was Director of Research and Development. His contributions have been in the area of guidance and control systems for transports, fighters, bombers, helicopters, missiles, re-entry vehicles, and spacecraft. He has published many papers on fly-by-wire systems, fault tolerant computer technology, avionics architectures, guidance, and navigation, and holds 16 patents in related areas. He is a McDonnell Douglas Corporate Fellow, Associate Fellow of the AIAA, Member of the IEEE and AHS, and has been Associate Editor of the *Journal of Guidance, Control, and Dynamics* since the journal's inception.



**JOHN E. PRUSSING** is Professor of Aeronautical and Astronautical Engineering at the University of Illinois at Urbana-Champaign, where he has been a faculty member since 1969. He received his B.S. degree in 1962 and his M.S. in 1963 in aeronautics and astronautics from Massachusetts Institute of Technology (MIT) and his Sc.D. in instrumentation from MIT in 1967. From 1967 to 1969 he was an Assistant Research Engineer and Lecturer at the University of California at San Diego. His current research interests include orbital mechanics and optimal trajectories. He has published over 50 papers in refereed journals and conference proceedings and is co-author of the text *Orbital Mechanics* to appear in 1992. He is an Associate Fellow of the AIAA, a past chairman of the AIAA Astrodynamics Technical Committee, past technical chairman of several AIAA conferences, and created and taught the AIAA short course *Optimal Orbital Maneuvers*.