

## JA 2009 Recognition and Appreciation

DOI: 10.2514/1.41636

**F**IRST, I would like to recognize the continued dedicated service of our fine Associate Editors who appear as the “2009 Team.” The quality of the published papers attests to their thoroughness and willingness to help authors bring out their best. Associate Editors are assigned papers in their specialty area. They typically seek up to three reviews for full papers and base decisions on the first two received. Engineering Notes are normally not sent out for review, but the Associate Editor may do so if warranted. The Associate Editor communicates revision instructions to the author and then decides whether the revised paper will be published. Additional duties of the Associate Editor include building a reviewer base, handling special sections from time to time, and handling special assignments.

Associate Editor Ken Holt offers this observation regarding future subjects that may seem opposite to the trends in aerospace development: “While a migration to hypersonics and space is exciting and necessary, where and how aerospace vehicles are launched and recovered has been largely ignored or shelved as too hard.” He observes our serious problem with crowded airports, lack of runways, and environmental issues. Most recent studies have focused on automating the departure and arrival procedures, but it still takes more than 10,000 feet of runway to operate a heavy aircraft. The aircraft industry needs to develop passenger long-haul aircraft that can depart and land in their own shadow: vertical takeoff and landing. This will not happen overnight, but it could help to solve the critical situation at our airports. Associate Editor Bob Duffy reports that his biggest problem is with papers submitted by foreign authors (not the United Kingdom). He encourages authors to have their paper reviewed by a native speaker of English before they submit to the *Journal of Aircraft* (JA). Authors are encouraged to contact one of our International Editors for any help needed with publication, including help with grammar.

We are fortunate to have an Editorial Advisory Board (EAB), also listed on the inside front cover. They advise the Editor-in-Chief and Associate Editors on all journal matters. They are each a Member of one of the AIAA Technical Committees (TC). They recommend journal scope changes and promote journal publication of the best papers sponsored by the TC. They sponsor survey papers and special sections and assist with developing and updating the list of reviewers. EAB Members help identify reviewers and also stimulate ideas for special sections or survey papers dealing with topics of TC as well as JA reader interest. EAB Member Jerry Chubb of the Aircraft Operations TC obtained this input from his Chair, Brian Baxley: “One thing that comes to my mind is perhaps a closer tie, or an easier process, to encourage the authors of outstanding papers presented in the ATIO conference to submit them to the JA. Perhaps a flyer that each session chair could hand out to selected papers that outlines the added value of going through more reviews to get published and how to submit the paper.” This sounds like a good idea across AIAA’s conferences.

A separate initiative regarding the subject of air traffic management (ATM) was introduced recently by Todd Farley,

Member of the Air Transportation TC. This was in coordination with Associate Editor Gil Crouse and EAB Member Jim Cistone, representing the Air Transportation TC. The ATM issue has been recognized early on by AIAA as a key aerospace specialty area, resulting in the formation of ATM TC in 2000 and the first ATIO conference in 2001. It is estimated that currently two-thirds of peer-reviewed manuscripts in the subject area go outside of AIAA. Evidently, there was confusion over whether ATM is within the scope of the JA. Accordingly, I took the action this year to add ATM to the JA scope.

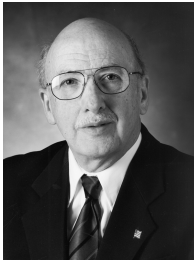
Our Board of International Editors, representing 19 countries, appears on the inside front cover. They each represent the JA within his country. They encourage authors to publish in the JA and assist authors needing help with publication. They provide help with grammar and prepare occasional editorials. They also sponsor papers and special sections. International Board Member Hirotohi Kubota has sponsored a special section, appearing in the September–October 2008 issue, on supersonic airplanes prepared by Dr. Ohnuki of the Japan Aerospace Exploration Agency (JAXA). Associate Editor Thomas Strganac has suggested that there is a need for an improved way to use the editorial services of the International Editors. Authors’ recommendations are appreciated. The important role of the International Editorial Board is underscored by the trend over the past few years of an increasing percentage of foreign papers. In 2004, 39% of papers had a foreign first author. That number grew to 55% in 2007.

The names of the past year’s reviewers through the first of October appear in this issue. I am sure you recognize many of these individuals, and I certainly wish to thank them for their technical insight and willingness to assure that our published papers are accurate, timely, important to readers, and will retain lasting value. The *Journal of Aircraft* would not exist without dedicated peer reviewers.

I would like to thank John Whitesides, Vice President of Publications, for his support of the Editorial Advisory Board and of the JA overall. Until her retirement in April, Norma Brennan served as the highly capable Director of Publications. She will be missed. Rodger Williams is the new Director of Publications and has already provided extensive support to the operations of the journals. Amanda Maguire is our Product Manager for the Journals. She ably tracked all the details, including scheduling editorial board meetings, year-end actions, etc. Michael Baden-Campbell is our most talented Managing Editor. Every request gets an immediate response. He has been of great help to the Associate Editors and authors, demonstrating great patience and thoroughness. Michael McGinnes is our Applications Specialist, and he ably helps us keep WriteTrack on track as it evolves. I look forward to continuing my association with this fine professional team.

Thomas M. Weeks  
Editor-in-Chief

## Editor-in-Chief



**THOMAS M. WEEKS** completed his degree work at Syracuse University, Department of Mechanical and Aerospace Engineering, in 1965. He entered active commissioned service that year, assigned to the U.S. Air Force Flight Dynamics Laboratory (now the Air Vehicles Directorate of the U.S. Air Force Research Laboratory) at Wright-Patterson Air Force Base. His initial work was in the field of electrogas dynamics at the nearly completed 50-MW wind-tunnel facility. In 1968, he separated from the U.S. Air Force, but took a civil position at the same location. He worked on a variety of projects, including unsteady hypersonic heating, transonic test techniques, and sonic boom, before becoming the Manager of the External Aerodynamics Group. He served first as the Deputy and then as the Manager of the X-29 Advanced Technology Demonstrator, developed by the Advanced Research Projects Agency, NASA, and the U.S. Air Force. He served as Chief of the Wind Tunnels Branch and the Technology Strategy Branch. He served as Acting Chief Scientist and Acting Deputy Director of the Directorate. He served as Chief of the Integration and Operations Division. He retired from the Air Vehicles Directorate in August of 1998 and is currently with Universal Technology Corporation.

## Associate Editors



**THOMAS W. AUGUSTINE** is the Airframe Integration Technology Thrust Leader within The Boeing Company's Phantom Works-Survivability Design and Integration group. He received his B.S. in aeronautical and astronautical engineering from Purdue University in 1982 and his M.S. in engineering management from Washington University in 1991. Mr. Augustine joined McDonnell Douglas in 1982 as a Structural Analysis Engineer and worked on numerous production and developmental aircraft programs. Since 1990, he has worked in the research and development of affordable, survivable, signature-reduction structure technology. He is a Senior Member of the AIAA and a Member of the National Defense Industrial Association and the Tri-Service Low Observables Supportability Working Group.



**DR. JOÃO LUIZ F. AZEVEDO** received his A.E. degree from Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil, in 1981. He obtained M.S. and Ph.D. degrees in aeronautical and astronautical engineering from Stanford University in 1984 and 1988, respectively. His professional experience includes the development and application of computational fluid dynamics (CFD) codes for applied aerodynamic and aeroelastic analyses of aerospace vehicles, aeroelastic clearance of launch vehicles and sounding rockets, and aerodynamic CFD analyses of wind-tunnel models before testing. Current areas of research interest include the development of adaptive unstructured grid CFD codes for realistically complex configurations, the implementation of turbulence models for such flow conditions, and the development of cost-effective techniques for coupling CFD solvers with aeroelastic analysis procedures. Teaching activities have been mainly centered at Instituto Tecnológico de Aeronáutica (ITA). He has worked as an Associate Professor at ITA since August 1988, teaching undergraduate- and graduate-level courses in CFD and advising undergraduate students and both M.S. and Ph.D. candidates in the areas of aeroelasticity and CFD. He has more than 40 full articles published in peer-reviewed archival technical journals and over 180 full papers published in the proceedings of technical conferences. He is an Associate Fellow of the AIAA, and he is a member of the AIAA Applied Aerodynamics Technical Committee. He is also a Regional Deputy Director for Central and South America in AIAA's Region VII.



**INDERJIT CHOPRA** is the Alfred Gessow Professor in Aerospace Engineering and Director of Alfred Gessow Rotorcraft Center at the University of Maryland. He received his B.S. in aeroengineering from Punjab Engineering College in 1965, his M.E. from Indian Institute of Science in 1968, and his Sc.D. from Massachusetts Institute of Technology (MIT) in 1977. He worked at the National Aerospace Laboratory from 1966 to 1974. His research there included wind-tunnel testing of scaled aeroelastic models of airplanes and launch vehicles. At MIT, he worked on dynamic analysis of wind turbines. In 1977, he joined the NASA Ames Research Center and Stanford University Joint Institute of Aeronautics and Acoustics, where he worked for four-and-a-half years on the development of aeroelastic analysis of advanced rotor systems. In 1981, he joined the University of Maryland. He has been working on problems associated with aeromechanics of helicopters, smart structures, and micro air vehicles. His graduate advising resulted in 34 Ph.D. and 60 M.S. degrees. An author of over 150 archival papers, Dr. Chopra has been Associate Editor of *Journal of the American Helicopter Society* (1987–1991) and *Journal of Intelligent Materials and Systems* (1977–present). He was the recipient of the 2002 AIAA Structures, Structural Dynamics, and Materials Award; 2002 AHS Grover Bell Award; 2001 ASME Adaptive Structures and Material Systems Prize; 2002 A. J. Clark School of Engineering Faculty Outstanding Research Award; and the 2004 SPIE Smart Structures and Materials Lifetime Achievement Award. He has been a Member of the U.S. Army Science Board (1997–2002). He is a Fellow of the AIAA, American Society of Mechanical Engineers, American Helicopter Society, National Institute of Aerospace, and Aeronautical Society of India.



**ROBERT E. DUFFY** is currently President of RED Associates, a research, development, and consulting firm. A former member of the faculty of the Department of Mechanical Engineering, Aeronautical Engineering, and Mechanics at Rensselaer Polytechnic Institute, he was the Chairman of the aeronautical engineering academic program. He is the author of over 65 published papers and research reports in the areas of applied aerodynamics, flight mechanics, and experimental fluid dynamics. Dr. Duffy has served as a consultant to numerous governmental agencies, industrial concerns, and individuals. He is on the Board of Directors of ENECO, Inc., a wind energy development firm that investigates and evaluates innovative concepts. He is a past Member of the Atmospheric Flight Mechanics Technical Committee and is an Associate Fellow of the AIAA.



**FRANKLIN E. EASTEP** is an Emeritus Professor of aerospace engineering at the University of Dayton. He received a B.S. in aeronautical engineering from The Ohio State University in 1958, an M.S. in aeronautics from the Air Force Institute of Technology in 1963, and a Ph.D. in aeronautics and astronautics from Stanford University in 1968. Dr. Eastep has been teaching and conducting research within the technical areas of structural dynamics, aeroelasticity, and unsteady aerodynamics since 1968. During that period, he has been the principal for 18 Ph.D. candidates and over 45 M.S. students. He served on active duty with the U.S. Air Force for 20 years, retiring in 1978. Dr. Eastep is a Member of the American Academy of Mechanics and is a Fellow of the AIAA. He is presently a National Research Council Senior Research Associate with the U.S. Air Force Research Laboratory at Wright-Patterson Air Force Base.



**PERETZ P. FRIEDMANN** is the François-Xavier Bagnoud (FXB) Professor of aerospace engineering and Director of the FXB Center for Rotary and Fixed Wing Air Vehicle Design in the Aerospace Engineering Department of the University of Michigan. He received his B.S. and M.S. degrees in aeronautical engineering from the Technion—Israel Institute of Technology and his Sc.D. (1972) in Aeronautics and Astronautics from the Massachusetts Institute of Technology (MIT). Before entering the academic world, Dr. Friedmann worked at Israel Aircraft Industries and was a Research Assistant at the Aeroelastic and Structures Laboratory at MIT. He has been with the University of Michigan since January 1999. Between 1972 and 1998, he was a Professor in the Mechanical and Aerospace Engineering Department of the University of California, Los Angeles. Between 1988 and 1991, he served as the Chairman of the department. Dr. Friedmann has been engaged in research on rotary-wing and fixed-wing aeroelasticity, active control of vibrations, hypersonic aeroelasticity, flutter suppression, structural dynamics, and structural optimization with aeroelastic constraints. He has published extensively (over 250 journal and conference papers). His accomplishments have been recognized by a number of awards: American Society of Mechanical Engineers (ASME) Spirit of St. Louis Medal for 2003; AIAA Structures, Structural Dynamics, and Materials (SDM) Award for 1996; AIAA SDM Lecture Award for 1997; ASME/Boeing Structures and Materials Award (2004); and the ASME Structures and Materials Award (1984). He is a Fellow of the AIAA and the American Helicopter Society and has been a naturalized U.S. citizen since 1977.



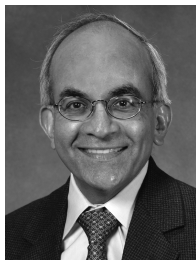
**AHMED A. HASSAN** is currently a Boeing Technical Fellow at the Boeing Company. His area of expertise is computational fluid dynamics (CFD). Dr. Hassan received his B.S. and M.S. from the University of Cairo in 1974 and 1976, respectively. He then received his Ph.D. from the University of Arizona in 1981. He was on the faculty of Arizona State University from 1981 to 1987 as an Assistant Professor. He joined The Boeing Company (then McDonnell Douglas Helicopter Company) in 1987, where he conducted research related to the application/development of CFD design and analysis tools for rotorcraft problems. He is the company representative on the corporate-wide CFD working group, an Associate Fellow of the AIAA (1981 to the present), and a Member of the American Helicopter Society (1987 to the present). He is currently serving as an Associate Editor for the *Journal of Aircraft* in the area of CFD. Dr. Hassan has published more than 30 archival studies and presented more than 60 papers at national and international conferences. He holds six patents and has four additional patents pending with the U.S. Patent and Trademark Office. His work has focused on modeling the aerodynamics of rotor blade-vortex interactions and investigating novel flow control techniques for rotorcraft applications.



**RONALD A. HESS** received B.S., M.S., and Ph.D. degrees in aerospace engineering from the University of Cincinnati. After completing his doctoral degree, he joined the faculty of the Department of Aeronautics at the U.S. Naval Postgraduate School. In 1976, he joined the staff of the Flight Systems Research Division at NASA Ames Research Center. In 1982, he joined the faculty at the University of California, Davis, where he is currently a Professor of mechanical and aeronautical engineering. His research interests lie in the areas of automatic and manual control and in human/machine systems. He is an Associate Fellow of the AIAA and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). In 2000, he was a recipient of the AIAA Mechanics and Control of Flight Award. He is also an Associate Editor of the *IEEE Transactions on Systems, Man and Cybernetics, Part A* and of the British *Journal of Aerospace Engineering*.



**KENNETH J. HOLT** retired from McDonnell Douglas Corporation in 1990. He had been involved in flight-test operations and marketing. He received his B.S. from Hampton University and his M.B.A. from the University of Missouri. He served 20 years in the U.S. Air Force and retired as a Lieutenant Colonel and a Command Pilot. His background is in fighters. He has flown the F-86, F-100, F-4, F-15, and F-18, and he spent tours in the Air Training Command and Strategic Air Command. He joined McDonnell Douglas in 1973. There, he flew production test flights and was the company's interface with the military and Federal Aviation Administration for test flights. He developed much of the flight-test operating procedure for the F-18 and AV8B, and he was the McDonnell Douglas flight operations consultant to the Government Aircraft Factory F-18 facility in Avalon, Australia. He retired from active flying in 1984. Mr. Holt served as Chair of the Aircraft Operations Technical Committee from 1985 to 1987. He is a Senior Member of the AIAA.



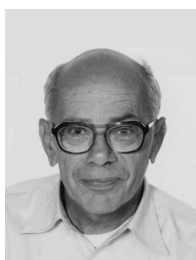
**MAHENDRA JOSHI** is the Chief Engineer of Noise and Emissions at Boeing Commercial Airplanes. He leads a team that is responsible for developing acoustical and emissions designs that meet the requirements for new and derivative airplanes, developing efficient technologies and tools to enable these designs, achieving noise and emissions certification for these products, providing operational environmental support to customers, and coordinating regulatory development. Mr. Joshi has over 30 years' experience in this field. He has held several positions, all related to environmental performance, during his career at The Boeing Company (including McDonnell Douglas). His prior responsibilities included Research Engineer; Senior Manager/Technical Fellow of Acoustics and Propulsion Technology; Manager of Environmental Performance for the NASA High-Speed Civil Transport; Manager of Single-Aisle Airplane Program Noise Support; Manager of Community Noise; and Manager of 787 Community Noise, Product Development and Emissions. Mr. Joshi received a Ph.D. in mechanical/aerospace engineering from the University of Tennessee Space Institute. He has also performed noise research and design at NASA Langley Research Center and at Bell Helicopter Textron. He is an Associate Fellow of the AIAA and was a Member of the Aeroacoustics Technical Committee.



**THOMAS WILLIAM STRGANAC** is a Professor of aerospace engineering at Texas A&M University. He received his B.S. in aerospace engineering from North Carolina State University in 1977, his M.S. in aerospace engineering from Texas A&M University in 1980, and his Ph.D. in engineering mechanics from Virginia Polytechnic Institute and State University in 1987. His research interests focus on structural dynamics, nonlinear mechanics, and aeroelastic phenomena. He served as an Engineer at NASA Wallops Flight Center from 1975 to 1982 and at NASA Langley Research Center from 1982 to 1989. He has internationally presented short courses on advanced flight tests and aeroelasticity, and he is the coauthor of the texts *Introduction to Flight Test Engineering* and *A Modern Course in Aeroelasticity*. He has served on the Lighter-Than-Air Systems Technical Committee (Ph.D.), the Balloon Systems and Technology TC, and the Structural Dynamics TC. He served as the General Chairman of the AIAA Structures, Structural Dynamics and Materials Conference in 1999 and served as the General Chairman of the AIAA Dynamics Specialists Conference in 1996. He is an Associate Fellow of the AIAA and a registered Professional Engineer.



**BRIAN E. THOMPSON** holds the Natural Sciences and Engineering Research Council and General Motors of Canada Chair of Engineering Design and Innovation at the University of Western Ontario. He received his B.A.Sc. (mechanical engineering) from the University of Waterloo in 1979 and a Ph.D. from Imperial College of Science and Technology in 1984. He has been a licensed Professional Engineer since 1986. Dr. Thompson is a seasoned engineering designer with experience in advanced medical, automotive, aircraft, rocket-engine, and instrumentation concepts. He has industrial experience at Bell Northern Research, Scientific Research Associates, and The Boeing Company, and he has held previous academic appointments at Imperial College, the University of Waterloo, and Rensselaer Polytechnic Institute (RPI). His research places emphasis on studio pedagogy, trailing-edge flows, vehicular design, and emerging technologies. He was the Chief Engineer of the Aircraft Studio at RPI, which produced the world's largest student-engineered aircraft. Dr. Thompson has engineering experience in a wide range of applications, including commercial aircraft, high-speed snow plowing, hybrid electric automobiles, axial turbomachinery, centrifugal pumps, heat exchangers, telephony heat transfer, gas and steam turbines, and pulmonary ventilation. He has authored over 160 publications and technical reports, is a patent holder, and has presented invited lectures and short courses on aerodynamics, engineering studios, and aircraft design in the United States, Europe, Canada, and the United Kingdom.



**MURRAY TOBAK** is a Senior Staff Scientist at NASA Ames Research Center. He has degrees from the University of California and Stanford University and has been a Research Scientist at NACA–NASA Ames Research Center since 1948. He has specialized in theoretical studies of fluid and flight dynamics of high-speed aircraft and missiles. His studies have been aimed at identifying problems in nonlinear dynamics, flow stability, 3-D separated flow, and vortex phenomena requiring basic research and new analytical and experimental tools for their solution. He is an Associate Fellow of the AIAA and has received NASA's Exceptional Service Award.