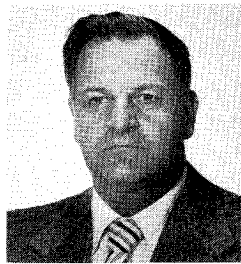
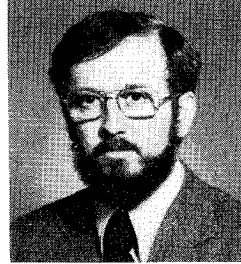
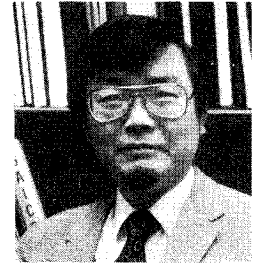
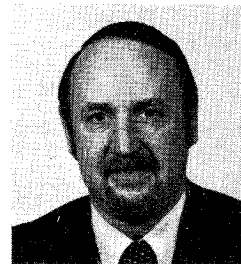
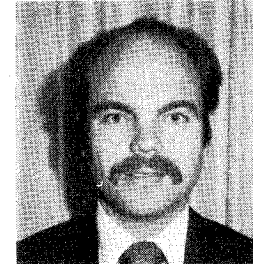
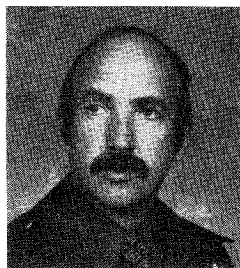


**David Clark****Allen Fuhs****Ronald Hess****Toshi Kubota****Dean Nelsen****Allen Ormsbee****Roy Reichenbach****Joseph Tymczyszyn****Thomas Weeks****Carson Yates**

Recognition and Appreciation

THIS first paragraph is addressed to the authors who publish in the *Journal of Aircraft* (JA). The authors know there is an anonymous group of people who are the Editors of JA. From that group one person was *the* Editor for your paper. Your contact with the Editor was by means of editorial comments, reviewers' critiques, and a tactfully written letter of transmittal from Mrs. Anne Huth. Arrayed before you are the photographs of the Editors who have a high regard for your technical articles and who thank you for choosing JA for publication. Without your articles there would not be a JA.

Our comments are now directed to the JA subscribers. The Editors thank you for subscribing to JA. We solicit your comments about the papers published in JA. The Editors carefully evaluate papers for technical merit, and we hope JA helps you in your professional career.

Our attention now shifts to the librarians who purchase JA for their university, government, or industrial libraries. Income from subscriptions at the library rate is of vital importance to the continued success of JA. Within your organizations are engineers and scientists who want to read JA.

The preceding paragraphs carry the sentiments of the complete Editorial Staff for JA. At this point I want to express my thanks to my editorial colleagues, the Associate Editors (AE) of JA. The AE's are volunteers who have a concern about their profession. The AE's spend many hours

on behalf of JA. Occasionally the AE needs to make decisions that are not easy. To be a good AE requires business-like organization, good technical judgment, and a desire to serve.

Before introducing the Editors of JA, I want to express also my appreciation for the excellent support from the AIAA New York Staff. Mrs. Anne Huth is involved with the daily tasks associated with JA as well as the other AIAA publications. Miss Ruth Bryans has many responsibilities including implementation of policy established by the AIAA Publication Committee. David Staiger manages the computer controlled typesetting, publications marketing, and many other essential functions. I never cease to be amazed at the scope of the work accomplished by the New York Staff with their limited personpower. Ralph R. Ragan, known as R³ by those who receive his memos, is Vice President—Publications. Ralph provides valuable guidance to the Editors. When one works with Ralph, there is no doubt that one is part of a dynamic team. Now meet the Editors of JA.

David R. Clark

David Clark is presently on the staff of Analytical Methods, Inc., Bellevue, Wash., as a Senior Research Scientist with responsibility for rotary wing subjects. Before joining Analytical Methods in the summer of 1977, Mr. Clark was with the Sikorsky Aircraft Division of the United Technologies Corporation for nearly 11 years working in the Advanced Research and Aeromechanics Branches as a Senior

Research Engineer, as Supervisor of the Fluid Mechanics Group, and, for the last two years, as Chief of Aerodynamics. Mr. Clark was responsible for originating and supervising work on helicopter aerodynamics and performance for all the aircraft in the Sikorsky product line and in support of the design, research and development process. In addition to the more routine aircraft performance, the work carried out by his group included configuration and wake modeling using distributed singularities, airfoil design, with and without viscous interaction, airfoil testing in steady and unsteady, yawed and unyawed flow, both theoretical and experimental boundary-layer studies and vortex flow investigations.

Before joining Sikorsky in 1966, he was a Research Fellow in the Aerodynamics Department at the College of Aeronautics, Cranfield, England, with responsibility for development of the helium hypersonic wind tunnel. His early experience in the Aerospace Industry was as an apprentice, from 1956 to 1960, and then aerodynamicist in the Guided Weapons Group at the then Bristol Aeroplane Company, Filton, England.

In addition to being an Associate Editor of the *Journal of Aircraft*, with responsibility for Rotary Wing Topics, he is the Chairman of the American Helicopter Society Aerodynamics Committee. He was also, until he resigned because of his relocation to the west coast, Vice President (Northeast Region) of the American Helicopter Society.

He is a member of the AIAA and the American Helicopter Society and has published widely, mainly on rotary wing subjects.

Allen E. Fuhs

Allen E. Fuhs earned his BSME at the University of New Mexico and his MSME and Ph.D. at the California Institute of Technology. At Caltech he majored in Jet Propulsion and minored in Physics.

Dr. Fuhs has worked as an engineer in industry (TRW Systems and Aerospace Corporation), a scientist in government (Chief Scientist of AFAPL, WPAFB), and a faculty member at universities (Caltech, Northwestern University, and University of Colorado). Currently, Dr. Fuhs is Distinguished Professor and Chairman of the Department of Mechanical Engineering at the Naval Postgraduate School, Monterey, Calif. He has the distinction of also serving as Chairman of the Department of Aeronautics at the Naval Postgraduate School in years past.

Professor Fuhs was a member of the Institute of Aerospace Sciences and the American Rocket Society. Over the years he has worked in many phases of AIAA activity, including Member of ARS MHD TC, Member and Chairman of AIAA PC TC, Charter Chairman of the Point Lobos Section, Member of Air Breathing Propulsion TC, Member of Missile Systems TC, and Co-Editor of Volume 34 in the Progress Series. Dr. Fuhs, who is an AIAA Fellow, became Editor-in-Chief of the *Journal of Aircraft* in 1974.

Ronald A. Hess

Ronald A. Hess received the B.S., M.S., and Ph.D. degrees in Aerospace Engineering from the University of Cincinnati in 1965, 1967, and 1970, respectively. After completing his doctoral work, he joined the faculty of the Department of Aeronautics at the Naval Postgraduate School in Monterey, Calif. While on the faculty, Dr. Hess taught and conducted research in the areas of flight mechanics and automatic and manual control. In 1976, he joined the staff at NASA Ames Research Center, where he is currently working in advanced V/STOL development in the Flight Systems Research Division.

Dr. Hess' specific research activity at Ames Research Center is directed toward the development of instrument landing capabilities for V/STOL aircraft. This includes the development of analytical techniques for modeling the human pilot in multi-axis flight tasks and the utilization of these

techniques in the analysis and design of cockpit displays and stability and control augmentation systems. Dr. Hess is a member of AIAA and Sigma Xi.

Toshi Kubota

Toshi Kubota, Professor of Aeronautics, has been with the California Institute of Technology since receiving a Ph.D. in Aeronautics from Caltech in 1957. He received his B.S. in Engineering, with a major in applied mechanics, from the University of Tokyo and his M.S. in Aeronautics from Caltech.

He has conducted studies in inviscid and viscous hypersonic flows, boundary-layer separation, and wake flows with the CALCIT Hypersonic Research Facility. His current research activities include fluid mechanics of room fire, liquid with gas bubbles, and internal waves in stratified media.

In 1956-57, Dr. Kubota served as a Research Associate at the University of Southern California. Since 1957, in addition to his duties at Caltech, he has acted as consultant to AER Inc., Lockheed Aircraft Corp., National Engineering Science Co., North American Aviation Inc., TRW Systems Group, and Flow Research Inc. Dr. Kubota is a member of AIAA, Sigma Xi, the American Physical Society, and the Physical Society of Japan. With this issue, Dr. Kubota is retiring as an Associate Editor of the *Journal of Aircraft*. He has served as an Associate Editor since 1975, and we wish to thank him for his many years of valuable assistance.

M. Dean Nelsen

M. Dean Nelsen is an Engineering graduate of Wichita State University, Wichita, Kansas; BSAE, 1958; MSME, 1962. During his entire professional career, he has been employed by The Boeing Company in Wichita. Beginning in 1958, his early experience included evaluation and design of B-52 system components, and preliminary design of systems and powerplant installations. From 1963 to 1968, he was a research engineer in the Aerodynamics and Propulsion Staff. His experience as a research engineer included wind tunnel, full-scale engine and flight testing, as well as special projects in transient fluid dynamics, transient heat transfer, and the physics of radiation from high-temperature engine exhaust gases.

During 1968, he was in charge of the Propulsion Staff and in 1969 directed acoustic lining research and testing in support of the 747 airplane. From 1970 through 1976, Mr. Nelsen was responsible for nacelle and noise abatement technology development and application. Programs under his technical leadership include the development of turbine noise reduction technology for NASA Langley, design and development of the acoustically treated nacelle for the G.E./NASA Lewis Quiet Engine "A," development, ground and flight test of certifiable quiet nacelles (SAM) for the 707 airplane for the FAA, and the development of a ground-runup afterburning engine noise suppressor for the U.S. Navy. He also directed all Wichita Division funded research and development programs in acoustics, propulsion, and materials for nacelles and associated products. His current assignment is Chief Project Engineer for the propulsion design of the new 707/CFM56 airplane.

Mr. Nelsen is the author of several technical papers and holds several aircraft related patents. He currently is a member of the AIAA Aeroacoustic Technical Committee and is chairman of the aeroacoustics sessions of the upcoming 16th Annual AIAA Aerospace Sciences Meeting.

Allen I. Ormsbee

Allen Ormsbee is an Associate Fellow in the AIAA and a member of the General Aviation Systems Technical Committee. He is employed by the University of Illinois at Urbana-Champaign, where he is Professor of Aeronautical and Astronautical Engineering and of Aviation; and he is Head of the Aviation Research Laboratory at the UIUC Institute of Aviation.

His research activities in recent years have been primarily in the area of low-speed airfoils and propellers. He is currently conducting a program of research under NASA sponsorship concerned with the prediction and measurement of trajectories of particles ejected from an ag-airplane.

Roy Reichenbach

Roy Reichenbach is Chief, Aeronautics and Mechanics Branch, U.S. Army Research and Standardization Group (Europe), which is located in London, England. He has responsibility for technical liaison and the basic research program in the engineering sciences.

Prior to December, 1975, he was a staff member of the Institute for Defense Analyses (IDA) for over six years, working on numerous studies pertaining to aircraft and missiles systems. Before that, he worked at TRW Systems and taught at the Naval Postgraduate School, Monterey, Calif.

Dr. Reichenbach received his B.S. and M.S. degrees from Ohio State University and his Ph.D. from the California Institute of Technology. He has commercial - instrument pilot certificates for fixed- and rotary-wing aircraft and flight instructor ratings for airplanes and instruments.

Joseph P. Tymczyszyn

Joseph P. Tymczyszyn received his B.S. in engineering at Caltech and both his M.S. and Ph.D in aeronautics and astronautics at MIT.

He began working for the Federal Aviation Administration (FAA) at their Washington Headquarters in 1973 in the Office of Systems Engineering Management. Two years ago he transferred to the FAA Flight Standards Service, Air Carrier Division, to work on operational and regulatory aspects of new technological developments in civil aviation.

Dr. Tymczyszyn has 2400 hours pilot time with an Airline Transport Pilot Certificate, a Flight Instructor Certificate, and a Helicopter Commercial License. He has a type rating in the DC-9 and serves as an FAA air carrier inspector in that aircraft. He currently flies over 100 hours per year in jet, turboprop, and piston aircraft.

Thomas Weeks

Thomas 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 Air Force Flight Dynamics Lab at Wright Patterson AFB, Ohio. He selected to work in the area of electrogasdynamics at the nearly completed 50-megawatt facility. In 1968, he separated from the Air Force but chose to remain at the same location working as a civilian.

He was assigned to the Analysis Group attached to the Aeromechanics Division Staff in 1972 working on transonic wind tunnel wall interference. Then, in 1976, he became Tech Manager of the External Aerodynamics Group of the Aerodynamics and Airframe Branch where he currently supervises eight engineers responsible for advanced aeroprediction methodology and new concept formulation and development.

E. Carson Yates Jr.

E. Carson Yates Jr. received a B.S. in Mechanical Engineering (Aeronautical Option) with high honors and an M.S. in Engineering Mathematics from North Carolina State University, an M.S. in Aeronautical Engineering from the University of Virginia, and a Ph.D. in Engineering Mechanics from Virginia Polytechnic Institute and State University. He is a member of Phi Eta Sigma, Phi Kappa Phi, and Sigma Xi honor fraternities.

Since 1949, Dr. Yates has been employed as an Aeronautical/Aerospace Engineer at the NACA/NASA Langley Research Center. His research involves steady and unsteady aerodynamics, aeroelasticity, and structural design. He was a member of the Langley Research Advisory Panel on Aircraft Aerodynamics and was group leader for structural dynamics during government evaluations of the National SST Program. He has received several performance awards, achievement awards, and citations from NASA and the FAA. Currently, he is a member of the Langley Interdisciplinary Design Team (PICASSO) and is group leader for Unsteady Aerodynamic Theory development.

Concurrent with NASA employment, Dr. Yates has been a faculty member of Virginia Polytechnic Institute and State University and an adjunct faculty member of North Carolina State University and is now a faculty member of George Washington University. He is an Associate Fellow of the AIAA. With this issue, Dr. Yates is retiring as an Associate Editor of the *Journal of Aircraft*. He has served as an Associate Editor since 1972, and we wish to thank him for his many years of valuable assistance.

Finally we want to recognize the numerous Reviewers for JA. The Reviewers contribute to the quality of the Journal and assist immeasurably in the evaluation of the papers. Reviewers are even more anonymous than the Editors. To express our appreciation, the names of JA Reviewers are listed annually.

Allen E. Fuhs
Editor-in-Chief

Reviewers for *Journal of Aircraft*, September 1, 1976–August 31, 1977*

Aarnes, Magne N.	Bauer, Andrew B.	Bruce, Donald F.	Choo, Young	Davis, G.W.
Abold, Philip L.	Beatty, Tom D.	Bryan, Frederick T.	Choudhury, Roy	Dean, W.
Aceto, Leonard D.	Beckemeyer, Roy J.	Byers, James L.	Cicolani, Luigi S.	Deets, Dwain A.
Acton, S.M.	Bell, Lawrence E.	Campbell, J.E.	Civinskas, Kestutis C.	Deissler, Robert G.
Adcock, J.B.	Belsley, Steven E.	Campbell, John P.	Clark, D.R.	DeJarnette, F.R.
Amann, Charles A.	Bencze, Daniel	Cantrell, C.R.	Clark, John	Denning, R.M.
Anderson, Gerald M.	Berman, Charles H.	Carlson, Harry W.	Collins, Donald J.	DeWeese, James H.
Anonatos, Philip P.	Berryman, R.G.	Carlson, Leland A.	Collins, Robert C.	Dexter, H. Benson
Ashkenas, Irving L.	Bielawa, R.L.	Carlson, Raymond	Conley, Fred M.	DeZubay, Egon A.
Attinello, John S.	Bilanin, Alan	Carta, Franklin O.	Cook, Thomas S.	Dietz, Robert O.
Bach, Ralph	Boyce, M.P.	Cassidy, Mell D.	Coons, Frank	Dillner, Bertil
Bahr, D.W.	Boyden, Richmond P.	Chadwick, W.R.	Corning, Gerald	Dimotakis, Paul
Baldwin, A.W.	Bradley, Richard G.	Chalk, Charles R.	Couch, Harold T.	Dobrzanski, J. Stanley
Ball, Robert E.	Bratt, R.W.	Chapkis, Robert L.	Cox, George B. Jr.	Dow, Marvin B.
Balsa, Tom F.	Bray, Richard	Charwat, Andrew F.	Crow, Steven C.	Draper, Alfred C.
Baronti, Paolo O.	Broderick, Anthony	Chen, Allen	Cunningham, Herbert J.	Dunham, R. Earl Jr.
Bates, W.F. Jr.	Brooks, Thomas	Cheney, M.C.	Danberg, James E.	Edwards, John W.
Baty, Daniel L.	Brown, William E.	Chin, Y.T.	Davies, Kent B.	Eicher, James A.

*Because it is difficult to include the reviewers from September, October, November, and December 1977 in this issue of the *Journal*, they will be listed with the reviewers for 1978, in the January 1979 issue.