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Ronald A. Hess



Barnes W. McCormick Jr.



Jean A. McGrew



Amedeo R. Odoni



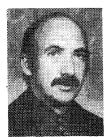
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The 1979 Team

MAJOR thrust of all AIAA Publications during 1978 A was the review and technical editing of papers on time. As an Editor-in-Chief, it is my responsibility to implement the emphasis on timely review and editing. An Associate Editor (AE) must have two primary qualifications. The first is sound technical judgment based on years of experience, and the second is a businesslike ability to meet deadlines consistently. The Journal of Aircraft (JA) has always placed emphasis on the first attribute. During 1978 the AE's were required to meet schedules. Before you nod your head and comment that that should have always have been the case, let me remind you that AE's are volunteers who give their time to help our profession. As an author you will applaud the focus on timely reviewing and editing. Except for a few isolated cases, the manuscripts in 1978 were processed on time. Action has been taken to decrease the number of time overruns.

Across the top of this page is an array of photographs of the 1979 Editorial Team for JA. There is a balance among editors from industry, government, and universities. Also, the geographical locations of the editors are balanced. Obviously, there is a distribution of talent to meet the range of technical topics within the scope of JA. Most important is the fact that each AE possesses the two attributes discussed earlier.

Here is your 1979 Team of Editors:

Donald M. Dix

Donald M. Dix received his BSME, MSME, and Sc. D. degrees from M.I.T. He is currently a member of the staff of the Institute for Defense Analyses, where his activities include the assessment of potential technological advances, particularly in the propulsion area, and their payoffs in future military systems. Prior to joining IDA in 1973, Dr. Dix was

Vice-President and Technical Director of Northern Research and Engineering Corporation, where he directed a wide range of R&D efforts in civilian and military energy conversion systems and equipment. From 1961 to 1966, he was engaged in high-temperature gasdynamics research at the Aerospace Corporation.

Dr. Dix is a member of AIAA, Sigma Xi, Combustion Institute, and the Combustion and Fuels Committee of the ASME.

Lars E. Ericsson

Lars E. Ericsson is a Consulting Engineer in the Engineering Technology Organization of Lockheed Missiles and Space Corporation, Inc., Sunnyvale, California, where he acts as a consultant to Satellite and Missile Systems Divisions on problems associated with aeroelasticity and vehicle dynamics. Before joining Lockheed Aircraft Corporation in 1956, and LMSC in 1959, he was with the Aeronautical Research Institute of Sweden and the Swedish Aircraft Company, SAAB. Dr. Ericsson received his M.S. degree from the Royal Institute of Technology (KTH), Stockholm, in 1949, and his Ph.D. in 1972. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics and is a member of the American Helicopter Society. Dr. Ericsson has published numerous papers in his related fields.

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 of Aeronautics and Mechanical Engineering at the Naval Postgraduate School, Monterey, California. He has had the distinction of serving as Chairman of the Department of Mechanical Engineering and, earlier, the Chairman of Department of Aeronautics.

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, California. 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.

Barnes W. McCormick Jr.

Dr. McCormick was born in Waycross, Georgia, in 1926. He is married and has one daughter.

Dr. McCormick received his B.S. degree in 1948, his M.S. in 1949, and his Ph.D. in 1954, all from the Department of Aeronautical Engineering at The Pennsylvania State University. After serving as an Associate Professor of Engineering Research at Penn State for one year, he joined the Vertol Aircraft Corporation (later a division of Boeing) in 1955, as Chief of Aerodynamics. In 1957 he was named head of the Department of Aeronautical Engineering at the University of Wichita. Dr. McCormick returned to The Pennsylvania State University in 1959, where he is presently a Professor of Aerospace Engineering and head of the Department of Aerospace Engineering. He has served as consultant to many industrial firms, including Boeing/Wichita, Boeing/Vertol, HRB-Singer, Outboard Marine Corp., North American Aviation, Vitro Laboratories, Martin-Marietta, the U.S. Army Aeronautical Research Laboratory, the U.S. Army Aviation Systems Command, Ling-Temco-Vought, Lockheed-California-Helicopter Division, the Federal Aviation Administration, and Melpar.

Dr. McCormick is a member of the American Helicopter Society, and has served as that Society's Technical Director. He is past Editor of the Journal of the American Helicopter Society. He is a member of the American Society of Engineering Education. He is a member and past president of the National Association of Aerospace Engineering Department Heads, an Associate Fellow of the American Institute of Aeronautics and Astronautics, and a member of

Sigma Xi, the Society of Sigma Gamma Tau, and Tau Beta Pi. Dr. McCormick has served as a Director of the Advisory Council for Archival Affairs, National Archives and Records Service, U.S. General Services Administration. He also served on the U.S. Army Aviation Systems Command's Scientific Advisory Group.

His areas of particular interest and experience include low-speed aerodynamics in general, aerodynamics of vertical flight, propeller design (including marine propellers), hydrodynamics, aerodynamic noise, and the behavior of vortex systems including their interaction with aircraft and lifting surfaces generally. He is a reviewer for the *Journal of Aircraft*, NSF Engineering Division and U.S. Army Research Office, author of numerous technical papers, and author of a text *Aerodynamics of V/STOL Flight*. He is a certified ground instructor and a private pilot with an instrument rating. Dr. McCormick is listed in Who's Who in Engineering, American Men of Science, and Who's Who in America.

Dr. McCormick received the 1976 ASEE Aerospace Division-AIAA Educational Achievement Award for his innovative contributions to aerospace engineering education.

Jean A. McGrew

Jean A. McGrew is an engineering graduate of the University of Washington, Seattle, Washington, with a B.S. in Aeronautical Engineering in 1962 and an M.S. in Applied Mechanics in 1963. He is a member of the AIAA, the Aerospace Flutter and Dynamics Council and the AIAA Structural Dynamics Technical Committee.

Mr. McGrew has recently been appointed Section Chief of Methods and Computing Support of the Structures Subdivision at the Douglas Aircraft Company. For the preceding eight years he has been supervisor of the Douglas Flutter Group which is responsible for all analytic determination of aircraft, including the DC-10 and DC-9 series and the YC-15. This experience included method development for and application to high gain active control systems such as the fly by wire Douglas Advanced Aerial Refueling Boom. He has also been responsible for and directly involved in aircraft and component ground vibration testing and flight flutter testing.

Prior to his Douglas employment, he worked as a flutter analyst and test engineer for the flutter group of the Northrop Company, Norair Division and in the R&D department of that company.

Mr. McGrew is the author of several technical papers and has been the principal investigator of several Air Force sponsored analytic and method development contracts.

Amedeo R. Odoni

Amedeo R. Odoni received his B.S., M.S. and Ph.D in electrical engineering at MIT in 1965, 1967, and 1969, respectively. He is now an Associate Professor in the Department of Aeronautics and Astronautics of MIT and is also a member of the staff of the Operations Research Center and of the Center for Advanced Engineering Study there.

His main interests are in the application of the methodology of operations research to problems in transportation networks, airports and air traffic control. In recent years he has developed computer-based mathematical and simulation models to assist in planning and design in these areas. He is currently conducting a research project under FAA sponsorship aimed at comparing and evaluating several available large-scale simulation packages aimed at estimating airside capacities and delays at major airports.

Dr. Odoni has acted as a consultant to several private or government organizations, including the FAA and the Board of Civil Aviation of Sweden, mostly in relation to airport and air traffic control problems.

Allen I. Ormsbee

Dr. 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 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.

John L. Porter

John L. Porter received his B.S. in Aeronautical Engineering with distinction from the University of Kansas, an M.S. in Aeronautics from the California Institute of Technology, and a D.Sc. in Applied Mechanics from Washington University, where he also taught. He is a member of Sigma Gamma Tau and Tau Beta Pi honorary fraternities.

Dr. Porter is presently with the Vought Advanced Technology Center as a Senior Scientist with responsibility for advanced propulsion research and development. Prior to joining the Advanced Technology Center in 1976, he was Manager, Systems Engineering for Redifon Simulations, Inc., where he directed research and development activities in the area of computer generated image visual systems.

From 1963 to 1974, Dr. Porter held various technical and managerial positions with the McDonnell Aircraft Corporation, where he contributed to a variety of V/STOL programs including: (1) USFRG, (2) Brequet Model 188, (3) Harrier, and (4) Navy Type A & B. In addition, he made key contributions to an Engine Cycle Evaluation Procedure, conceived the Modified Rutowski method of flight path optimization with variable throttle, and directed an Inlet/Aircraft Drag Investigation program connected with the F-15 Eagle, which received the Air Force's Outstanding Program award.

Dr. Porter is a past recipient of the SAE Wright Brothers' Award for the paper he co-authored on the integration of flight and propulsion controls. He is currently a member of the AIAA V/STOL Aircraft Systems Technical Committee and is chairman of the V/STOL Analysis and Design session of the upcoming 17th Annual AIAA Aerospace Sciences Meeting.

Craig D. Simcox

Dr. Simcox received his B.S.A.E. from Iowa State, University in 1962; his M.S.A.E. from Stanford University in 1965; and his Ph.D. from Purdue University in 1969. He joined NASA/Ames Research Center, 1962 to 1965. Studies there included aerodynamics of preliminary SST designs, gasdynamic effects of planetary atmospheres, and development of low temperature ablators for model testing.

In 1965 he was admitted to Purdue University where he conducted research on shock wave attenuation and acoustic-turbulent interactions with application to free jet spreading.

Since joining The Boeing Company, Dr. Simcox has worked in research and management in the Noise Technology Staff. His first research was to study the noise generated by hot and cold choked jets with emphasis on shock-related noise fields. Research included jet noise prediction, noise source distribution studies, low velocity jet noise characteristics, and noise characteristics of coannular (bypass) jets, in-flight effects, and suppressor systems. He served as program manager on several proposal teams and contracts including manager for Task III of the DOT/SST Follow-On contract to develop efficient means of noise suppression. He is currently Noise Technology Laboratory Chief.

Dr. Simcox is an Associate Fellow of the AIAA and a past member of the Acoustical Society of America. He was chairman, AIAA Pacific Northwest Section; the Section received the Outstanding Section of Region VI Award and the National Award for Outstanding Event of the Year. He was Chairman of the AIAA Technical Committee on Aeroacoustics. He is Atmosphere and Space Sciences Technical Specialist Group Coordinator. He was the General Chairman of the Fourth AIAA Aeroacoustics Specialists Conference, Atlanta, Georgia, and Administrative Chairman for the Eleventh AIAA Fluid and Plasma Dynamics Conference, Seattle, Washington. He also served on the Propulsion Committee for the AIAA/STPO Conference on Civil Aviation RT&D Policy, Alexandria, Virginia, February 1976. He is a member of the AIAA Career Environment Committee. He is a member of the Scientific Organizing Committee for the ICA/IUTAM Symposium on the Mechanics of Sound Generation in Flows, Göttingen, 1979.

Thomas M. Weeks

Dr. 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.

An expression of appreciation for our retiring AE's is appropriate. AIAA, JA, and the community of aircraft professionals are indebted to David Clark, Toshi Kubota, Dean Nelsen, Roy Reichenbach, Joseph Tymczyszyn, and Carson Yates for their efforts and hard work. As Editor of JA, I personally thank each retiring AE for his help in maintaining JA as the pre-eminent archival journal for aircraft.

California is the home of many bumper stickers. For some examples, consider: "Be Alert. We Need More Lerts." and "Have you hugged your child today?" Contact between the Editor and AE's is mainly by letter and telephone. We meet once or twice a year at AIAA meetings. To paraphrase one of the bumper stickers: "Has the Editor called and thanked the AE for his help today?" Without a strong team of AE's, JA would flounder.

There are three groups of people who are necessary to maintain a quality technical journal. For obvious reasons, the most important of the three groups is the authors. Without manuscripts, JA would soon be defunct. Hence we reiterate the thought expressed in earlier editorials: The Editors thank the authors for selecting JA. The next important group is composed of the reviewers for JA; a few words about reviewers follow shortly. Finally, the third group required to publish a journal is the editorial staff; it includes the personnel at the AIAA New York headquarters as well as the Editor and AE's. As Editor of JA, I recognize the valuable contributions made by the AIAA New York staff, and I want to express my thanks to Ruth Bryans, Dave Staiger, Larry Levy, and Dottie Hombach. Anne Huth, one member of the AIAA New York staff, retired in 1978. To her we also owe a debt of gratitude.

Now this editorial will be completed with a few words about reviewers. Usually an editorial expresses sincere appreciation to the reviewers, lists their names, and then stops. However, this year your Editor is motivated to comment in more depth about them. Reviewers can be placed along a scale of quality. The yardstick has the following features, ranging from useless reviews to excellent reviews:

1) Never returns the manuscript or review report.

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- 2) Recommends rejection without specific, objective reasons.
- 3) Returns a blank review report form except for checking the boxes.
- 4) Returns a review report with written comment as well as boxes checked; written comment focuses on grammar, typographical errors, etc., but fails to evaluate merit.
- 5) Promptly gives manuscript to a *qualified* colleague for review if he does not have time to do it himself. Qualified colleague then completes the review.
- 6) Returns promptly a complete review report; comments are thorough and perceptive and focus not only on the merit of the paper but also point out the other errors enumerated in

Item 4 above. If the recommendation is to reject, it is substantiated by specific and objective reasons.

Fortunately most reviewers fall along the scale at 5 or 6. If you are a reviewer who earns a scale of 1, 2, or 3, the chances are that your name is deleted from the Editor's list of reviewers. Sometimes a reviewer who is normally a scale 6 reviewer regresses to a mark of 3 on the reviewer quality scale. In that case, the editor usually selects the reviewer again.

The editors attempt to match the content of the manuscript with the areas of competency of the reviewer. Occasionally a mismatch occurs. As a reviewer, if a paper does not match your technical area, please give it to a qualified colleague or return the manuscript promptly to the editor.

Now that I have commented about the range of quality of reviewers, I should quickly state that the majority of our reviewers are at a scale of 6. The editors of JA do appreciate their efforts.

Allen E. Fuhs Editor-in-Chief

Reviewers for Journal of Aircraft, September 1, 1977 - August 31, 1978*

Abeyounis, W.K. A'Harrah, Ralph C. Alderete, Thomas Armstrong, Denis Ascough, J.C. Bach, Ralph E. Back, Lloyd H. Baird, Eugene F. Bankovskis, John Barker, Steve Barringer, Tim Bauer, Andrew B. Beatty, Tom D. Beheim, Milton A. Bencze, Daniel Bennett, Arthur G. Bergey, Karl H. Berman, Charles H. Berwick, John Bielat, Ralph Bielecki, A.J. Blackwell, J.A. Bower, W.W. Braslow, Albert L. Brown, Edward Brunda, Donald F. Bryson, Arthur E., Jr. Butler, Richard W. Calarese, W. Campbell, John P. Carey, Fenton Carlson, Leland A. Carmichael, Bruce H. Carter, A.F. Casper, D.R. Cavage, Robert L. Chalk, Charles R. Chapman, Alan J. Chen, Ching J. Cheney, M.C.

Cheng, Hsien K.

Clark, William H.

Clement, Warren Coalson, Michael S. Cochrane, John A. Cook, Thomas S. Cooper, D.E. Corsiglia, Victor Crawford, Frank S. Csavina, Frank L. Curran, Edward T. Danforth, C.E. Day, Carroll Decher, Reiner DeHoff, Ronald L. Deiwert, George S. Dix, Donald Dollyhigh, S.M. Donaldson, Coleman D. Dowell, Earl H. Duggan, Michael F. Dusto, Arthur R. Dyer, Calvin L. Edwards, John W. Englar, Robert J. Entner, R. Erbacher, H. Erickson, J.C., Jr. Farr, J.E. Fearn, R.L. Feder, Aron Fitzgerald, J.H. Flax. Alexander H. Forrest, Neagle R. Fortenbaugh, Robert L. Foye, Raymond L. Freeman, D.C., Jr. Friedmann, Peretz Garadia, S.H. Gibson, John S. Gleiter, D. Goranson, Ulf Gord, Peter R.

Gran, Richard

Grandt, Alten F., Jr. Gray, Robin B. Greitzer, Edward Grunnet, James L. Guess, A.L. Gupta, Narendra Gutierrez, Orlando A. Gutowsky, H.S. Haftka, Raphael T. Hagerman, John Hamilton, Gordon L. Hanus, Gary J. Harney, Donald J. Harris, R.M. Hayden, Richard Hayduk, Robert Hess, Andrew Hess, John L. Hess, Ronald Hewett, Marle Hicks, R.M. Hidalgo, Henry Hill, Maynard L. Hunter, Henry J. Hwang, Chintsun Inumaru, Norio Jacobson, Ira D. James, Calvin R., Jr. Jeffers, James D., II Jobe, Charles E. Johnson, W.S. Johnson, Wayne Johnson, William G., Jr. Johnston, James P. Jordan, Peter F. Kailos, Nicholas C. Katz, Henry Kaufman, Albert Keener, Earl R. Kelly, Thomas C. Kendall, Jim, Jr.

Kinsey, Don W. Kirk, Donald Kisielowski, Eugene Koepnick, Edward G. Korn, Arthur O. Korn, David Kotansky, D.R. Kraft, E.M. Kuhlman, John M. Kutler, Paul LaBerge, Charles A. Lacey, D.W. Lamar, John E. Langen, William A., Jr. Large, R. Larson, Richard S. Laughrey, James A. Layton, Donald Lazarick, Richard T. Lee, Alan H. Leiby, David W. Lekvan, C. Levin, Alan D. Liebeck, Robert H. Lin, Kuang-Huei Lissaman, Peter Lo, Ching-Fang Lombardo, Sylvester Long, Richard L. Louis, Jean F. Luckring, James M. Lutze, Frederick H. McCarty, John E. McCluskey, Edward J. McIntosh, Samuel C., MacKay, Theron L. Maiden, Donald L. Malcom, Gerald N. Marchman, J.F., III Margason, Richard J. Marsh, Alan H.

Martens, Richard

Martin, Stanley, Jr. Marto, Paul Maskew, B. Mason, W.H. Matsuki, Masakatsu Matulka, Robert D. Mavripilis, F. Mayhew, David R. Melick, Clyde H. Mellberg, L.E. Mertaugh, L.J. Messerile, Robert Metz, Dan Metzger, Darryl E. Metzger, F.B. Meyer, Wayne Mikolajczak, Alec A. Miley, Stanley, J. Miller, David S. Moffitt, Robert C. Mokry, Miroslav Moorhouse, David J. Morton, Jeffrey B. Mullen, Joseph, Jr. Mullin, F.J. Nagaraja, K.S. Ness, Nathan Nissim, E. Nolte, Edward P. O'Brien, Walter F., Jr. O'Conner, W. O'Keefe, Jack Orlik-Rückemann, K.J. Osder, Stephen Packman, A. Palmer, Everett A. Palmer, George M. Panella, Robert F. Pao, S. Paul Papailiou, K. Parks, Edwin K. Paterson, Robert W.

Kilgore, Robert A.

^{*}Because it is difficult to include the reviewers from September, October, November, and December 1978 in this issue of the Journal, they will be listed with the reviewers for 1979, in the January 1980 issue.