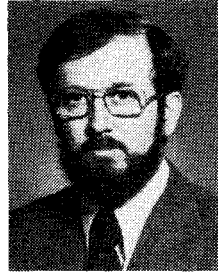
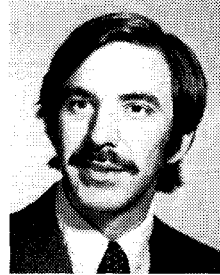
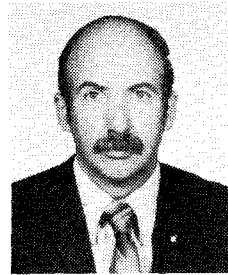


**Donald M. Dix****Lars E. Ericsson****Ronald A. Hess****Barnes W. McCormick****Jean A. McGrew****John L. Porter****Craig D. Simcox****Thomas M. Weeks**

The 1981 Team and a 50th Anniversary

WE begin a new publication year with great optimism based on clear evidence of growth. In 1979-80 we published six 96-page issues (rather than the standard 64). In 1981 this will become eight issues with 96 pages. This reflects an increased volume of submitted high quality papers and a commitment by the editorial department to achieve timely publication of important technical results.

Many of the articles to appear this year will provide substantial technical background for most of the contemporary issues of aircraft. These issues include (but are not limited to) energy efficiency, safety-of-flight, computer aided design/manufacturing, digital control, advanced structures, aircraft noise, vertical/short takeoff or landing, forward swept wings, operations and nozzle design. The *Journal of Aircraft* will publish papers in these areas as well as in the hard core technology areas of computational aerodynamics, wind tunnel test, active flutter suppression, turbo propulsion, etc.

As of this writing we have very few articles in the pipeline that address the areas of reliability and maintainability. The importance of these areas cannot be overstated at this time. Technical capability is worthless if the system cannot be economically maintained or exhibits low mean time between failure. Definitive articles covering technical and/or economic analysis aspects of these areas would provide a valuable contribution and are welcome.

The *Journal of Aircraft* will join its sister publications in celebration of the AIAA's 50th Anniversary. The vast majority of us are utterly dependent upon the substantial technical achievements of the past. Let us take some time during the coming year to recognize past accomplishments, discover exactly how key technology breakthroughs have affected our current practice and look ahead to removal of remaining technical barriers. The *Journal of Aircraft* will publish seven History of Key Technology articles this year.

Now let's turn to the enjoyable task of recognition. Our Associate Editors deserve much of the credit for the *Journal of Aircraft*. I have found my second year, working with this fine group of professionals, to be highly rewarding and gratifying. The results of their endeavors have been reflected

throughout our entire operation. Continued diligence in technical quality, timely processing of manuscripts, succinct instructions to authors etc., would not have been possible without their dedication. Dr. J. Gregorek joined the team last year but was only able to serve a few months. Our thanks go to Jerry for his efforts. Dr. R. Duffy whose biography appears below has just joined the staff. He will provide his expertise in the area of general aviation. The brief biographies of the 1981 Associates Editors follow:

Donald M. Dix

Donald M. Dix received his B.S.M.E., M.S.M.E., 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.

Robert E. Duffy

Dr. Robert E. Duffy is an associate professor of aeronautical engineering and astronautics at Rensselaer Polytechnic Institute. He received his B.A.E., M.A.E., and Ph.D. degrees from Rensselaer in 1951, 1954, and 1965 respectively. He has worked as an aeronautical engineer at Wright Paterson Air Force Base, and as a research engineer at Grumman Aerospace Corporation. He is currently the technical director of Panafight Corporation. His professional society affiliations include membership in the American Association for the Advancement of Science and the American Society of Mechanical Engineers. Dr. Duffy is an Associate Fellow of the AIAA.

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.

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's 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

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 for 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.

His areas of particular interest and experience include lowspeed 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.

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 a 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 vibration, unsteady aerodynamic and flutter characteristics of Douglas aircraft, including the DC-10 and DC-9 series and the YC-15. This experience included method development for the 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 method development contracts.

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.

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 ablaters 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 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.

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 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.

Dr. Weeks is an Associate Fellow of the AIAA.

We are all extremely indebted to the members of the editorial department for their constant support and attention to detail. In particular I'd like to thank Marie D'Amico, Dave Staiger, and Norma Brennan.

Our International Editors continue to supply articles of current interest in their respective countries. We shall publish the second International Issue in May.

Finally I come to the reviewers listed below. Our success comes in large part due to their promptness and thoroughness. The "trivial review" is becoming rare. Reviewers are encouraged to continue their very fine performance during the coming year.

Thomas M. Weeks
Editor-in-Chief

Reviewers for *Journal of Aircraft*, September 1, 1979–August 31, 1980*

Abelkis, Paul	Butler, Richard W.	Eckstrom, Clinton	Hadji, A. Sheikh	Jackson, S. Keith, Jr.
Adolph, Charles E.	Campbell, J. E.	Edelman, Raymond	Hadley, S.	Johnson, Forrester T.
Ahles, A. F.	Campbell, John P.	Edwards, John W.	Hafez, Mohamed	Johnson, Wayne
Ahuja, Drishan Kumar	Capone, Francis J.	Egolf, T. Alan	Haggard, John B., Jr.	Jones, Robert T.
Amiet, Roy	Carleton, W. E.	Erickson, Gary E.	Hakkinen, Raimo J.	Jordan, Peter F.
Anderson, John D.	Carlson, Harry W.	Esenwein, F. T.	Hallock, James N.	Kalviste, J.
Anderson, Seth B.	Carmichael, Ralph L.	Everett, William J.	Harris, Robert B.	Katsanis, Theodore
Anglin, Ernie L.	Carson, Bernard H.	Fagan, J. R.	Hart-Smith, L. J.	Kauffman, Ronald C.
Ashley, Holt	Cassenti, Brice	Fanning, A. E.	Hassig, Hermann J.	Keeley, B.
Bacon, J. W., Jr.	Caughey, D. A.	Farassat, Fereidoun	Havener, A. G.	Kelley, Larry
Baerst, C. F.	Chambers, J. R.	Feifel, Winfried M.	Hazen, David C.	Kemp, William B., Jr.
Bailey, Frank, R.	Chipman, Richard	Feiler, Charles E.	Hecht, A. M.	Kerr, K. P.
Ballhaus, William F., Jr.	Clark, John W., Jr.	Fidler, J. E.	Heffley, Robert K.	Klopfert, Goetz H.
Bennett, A. G., Jr.	Coe, Paul L.	Fink, Martin R.	Henderson, Robert E.	Koeing, David G.
Bennett, Robert	Collins, Daniel J.	Fishbach, L. H.	Henderson, W. P.	Kohlman, David L.
Benson, Thomas J.	Corning, Gerald	Fischler, Jerome E.	Hess, Ronald A.	Kotansky, D. R.
Bentz, Charles E.	Cox, George B., Jr.	Fortenbaugh, Robert L.	Hickey, David H.	Krieger, Robert J.
Bergman, Dave	Cox, Charles	Francis, M. S.	Hodge, Charles G.	Laats, A.
Biggers, James C.	Dalby, T.	Freyre, O. L.	Holehouse, Ian	Lamar, John E.
Billig, Frederick S.	Daugherty, J. C.	Frink, N. T.	Holloway, Donald R.	Lan, C. T.
Block, D. B.	Davis, Sanford S.	Fukuda, Michael K.	Holst, T. L.	Landgrebe, Anton J.
Bohn, A. J.	DeMott, L. R.	Gangwani, S.	Hooper, H.	Landrum, Emma Jean
Boone, Jay D.	Denke, Paul H.	Garbo, S.	Hosny, Wishaa M.	Lansing, Donald L.
Boruff, W. R.	DeYoung, J.	Gerardi, A.	Houbolt, John C.	Large, Robert
Bowers, Douglas	Dillner, Bertil	Gillard, T. J.	Hsia, E.	Lawrence, Kent L.
Bradley, Richard G.	Dixon, C. J.	Glaser, Fred. C.	Hummel, D. R.	Layton, Donald
Brewer, W. N.	Dosanjh, D. S.	Goodwin, J. K.	Hurley, F. X.	Lee, C. C.
Brown, Milfred W.	Dugundji, John	Goransen, Ulf	Hwang, Chintsun	Lee, John D.
Brown, Squire	Dunham, R. Earl, Jr.	Gray, Robin B.	Ii, Jack Morito	Letton, George C.
Burnett, J. R.	Dwoyer, D. L.	Green, K. A.	Illiff, Kenneth W.	Leve, H.
Burt, R. H.	Eastin, B.	Haas, Ray	Inger, George R.	Lissaman, Peter

*Because it is difficult to include the reviewers from September, October, November, and December 1980 in this issue of the Journal, they will be listed with the reviewers for 1981, in the January 1982 issue.