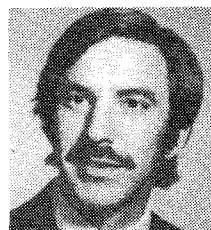
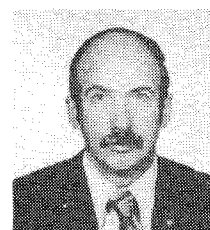


**Robert E. Duffy****Lars E. Ericsson****Ronald A. Hess****Harry H. Heyson****Jean A. McGrew****John L. Porter****Craig D. Simcox****Thomas M. Weeks**

## The 1982 Team

**T**HE aircraft technical community is experiencing a strong upswing in new airframe activity, and the outlook is most encouraging for the 80's. As examples we see a re-start on the B-1, the shuttle, stealth, cruise missile, new commercial aircraft, etc. The first new experimental "X" series airplane in 12 years has emerged. Designated the X-29A, the aircraft features forward swept wings. The *Journal of Aircraft* will publish articles on these new developments, as well as articles covering the fundamental disciplines of aircraft technology.

One year ago I emphasized the lack of articles addressing the areas of reliability and maintainability. These highly important areas deserve a great deal of attention, but to date we are still very deficient in articles on these subjects. Definitive articles covering technical and/or economic analysis aspects of these areas will be most welcome.

The 1982 team of Associate Editors is fully prepared to process your articles this year. As you can determine from their biographies, they represent an excellent cross section of technical expertise. They also represent a full spectrum of university, government, and industry background and coverage. They deserve much of the credit for the *Journal of Aircraft*, which has been experiencing an annual growth rate of about 9%. I salute their continued diligence, careful attention to detail, and pride in their profession and in AIAA publication activities.

### **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 Patterson Air Force Base, and as a research engineer at Grumman Aerospace Corporation. He is currently the technical director of Panaflight 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.

### **Franklin E. Eastep**

Franklin E. Eastep is a professor and director of Aerospace Engineering at the University of Dayton. He received a B.S. from Ohio State University in 1958, a M.S. from the Air Force Institute of Technology in 1963, and a Ph.D. 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 this period of time he has been the principal thesis advisor for five doctoral students and 25 master students. Dr. Eastep is a Member of the American Academy of Mechanics and an Associate Fellow of the AIAA.

### **Lars E. Ericsson**

Lars E. Ericsson is a Senior 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 over 100 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 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.

### Harry H. Heyson

Harry H. Heyson has conducted research for over 32 years at NACA and NASA. He is the author of over 70 papers on helicopter and V/STOL induced flow fields, ground effect, and wind-tunnel wall interference. He currently is Head of the Vehicle Integration Branch which conducts studies of the impact of new technology on aircraft of the future. He received a BAeE from the Polytechnic Institute of Brooklyn in 1949 and an MS in AeE from Virginia Polytechnic Institute in 1958.

### 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 Senior System Integration Manager for Airframe for the MDF 100. Prior to that, he was Chief Design Engineer for Loads and Dynamics. In the preceding years, he has been Section Chief of Methods and Computing Support of the Structures Subdivision at the Douglas Aircraft Company. 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 Program Manager 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 Thermophysics 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 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 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. He is currently the deputy manager of the X-29A (Forward Swept Wing) Program in the Air Force Wright Aeronautical Laboratories.

Dr. Weeks is an Associate Fellow of the AIAA.

---

All of us are extremely indebted to the members of the New York staff for their constant support and attention to detail. In particular I'd like to acknowledge Pam Edwards, Norma Brennan, Maria Reyes, and Dave Staiger. Together we have found additional time-saving procedures to hold down the publication cycle and will continue unrelentingly in this direction.

Our international editors listed on the masthead continue to provide us with excellent articles of current interest from their respective countries. We shall publish a third International Issue in May.

Finally, I come to the *Journal of Aircraft* list of Reviewers. Our overall success rests heavily on their promptness and thoroughness. We rarely experience a "trivial review". Their actions during 1981 are most appreciated.

Thomas M. Weeks  
Editor-in-Chief

### Reviewers for *Journal of Aircraft*—1981

- |                      |                     |                     |                      |
|----------------------|---------------------|---------------------|----------------------|
| Abelkis, P. R.       | Cutrell, R. E.      | Havener, A. G.      | Kulfan, R. M.        |
| Adolph, C. E.        | Dadone, Z. U.       | Hazen, D. C.        | Kurkowski, R. L.     |
| Ahles, A. F.         | Davis, S.           | Hecht, A. M.        | LaFavor, S.          |
| Ahuja, K. K.         | DeYoung, J.         | Heffley, R.         | Lamar, J. E.         |
| Aidala, P.           | Diehl, L.           | Henderson, R. E.    | Lamb, O. D.          |
| Anderson, D. M.      | Dillenius, M. F. E. | Henderson, W. P.    | Lan, C. E.           |
| Anderson Jr., J. D.  | Dillner, B.         | Hersh, A. S.        | Landahl, M. T.       |
| Anderson, S. B.      | Dosanjh, D. S.      | Hess, J. L.         | Landgrebe, A. J.     |
| Angerer, J. R.       | Dowell, E. H.       | Hess, R. A.         | Landram, E. J.       |
| Annin, G. D.         | Duffy, M. A.        | Hewett, M. D.       | Large, R. A.         |
| Ashizawa, M.         | Dunn, H. J.         | Higgins, M. W.      | Larson, R. C.        |
| Ashley, H.           | Dvorak, F. A.       | Hodge, C. G.        | Layton, D. M.        |
| Bacon Jr., J. W.     | Eastin, R.          | Hodges, D. H.       | Lee, C. C.           |
| Bailie, J. A. H.     | Eckstrom, C. V.     | Hohenemser, K. H.   | Lee, J.              |
| Barlow, J. B.        | Edelman, R.         | Holcomb, M. L.      | Leve, H. L.          |
| Bauer, A. B.         | Edwards, J. W.      | Holehouse, I.       | Liberkind, M.        |
| Bennett Jr., A.      | Englar, R. J.       | Holloway, D. R.     | Lincoln, J. W.       |
| Bennett, R. M.       | Erickson, J. C.     | Holst, T. L.        | Lindsey, M. W.       |
| Benson, T. J.        | Erickson, L. L.     | Homicz, G.          | Liu, D.              |
| Bergman, D.          | Etkin, B.           | Hooper, E. H.       | Logan, A. H.         |
| Biggers, J. C.       | Everett, W. J.      | Houlbolt, J. C.     | Logan, T. R.         |
| Billig, F. S.        | Fairbanks, D. R.    | Hsia, E. S.         | Lores, M. E.         |
| Blackwell Jr., J. A. | Fairchild, J.       | Hummel, D.          | Lumley, J. M.        |
| Bland, A. M.         | Fanning, A. E.      | Hunter, J. S.       | MacCormack, R. W.    |
| Blatt, P.            | Farassat, F.        | Hurley, F. Y.       | Mack, L. M.          |
| Blazowski, W. S.     | Fejer, A. A.        | Ii, J. M.           | Maine, R. E.         |
| Block, D. B.         | Ferlent, F. H.      | Iliff, K. W.        | Malcolm, G. N.       |
| Block, P.            | Fink, M. R.         | Inger, G. R.        | Malloy, J. K.        |
| Bloomer, H. E.       | Fischler, J. E.     | Iversen, J. D.      | Malmuth, N. D.       |
| Bohn, A. J.          | Fishbach, L. H.     | Jackson Jr., C. M.  | Mandle, R. J.        |
| Bonner, E.           | Fitch, K. R.        | Jacobson, I. D.     | Marchinski, L. J.    |
| Borland, C.          | Fluk, H.            | Jenness, C. M.      | Marchionna, N.       |
| Boruff, W. R.        | Fortenbaugh, R. L.  | Johnsen, F. J.      | Marchman, J. F., III |
| Bradley, C. E.       | Francis, J.         | Johnson, W.         | Marcy, W. L.         |
| Brown, M. W.         | Freeman Jr., D. C.  | Jones, D. N.        | Margason, R. J.      |
| Bustow, D. R.        | Freyre, O. L.       | Jordan, P. F.       | Marsh, A. H.         |
| Campbell, J. F.      | Friedmann, P. P.    | Jordon Jr., F. Y.   | Marsh, K. R.         |
| Campbell, W.         | Frink, N. T.        | Jou, W.             | Marvin, J. G.        |
| Carleton, W. E.      | Fukuda, M. K.       | Kalviste, K.        | Massier, P. F.       |
| Carlson, H. W.       | Gabel, R.           | Kandil, O. A.       | Matheny, N. W.       |
| Carlson, L. A.       | Gaspers Jr., P. A.  | Karger, W. J.       | Matoi, T.            |
| Cassenti, B. N.      | Gerardi, T. G.      | Kauffman, R. C.     | Mavs, J. R.          |
| Caughey, D. A.       | Gessow, A.          | Keeley, B.          | Mazzio, V. F.        |
| Chapkis, R. L.       | Glasgow, E. R.      | Kelley, H. J.       | McBride, J.          |
| Chen, B. K.          | Goldstein, M. E.    | Kemp Jr., W. B.     | McCloud III, J. L.   |
| Chen, M. K.          | Goodwin, F. K.      | Kentfield, J. A. C. | McIntosh Jr., S. C.  |
| Chevalier, H. L.     | Goranssen, U. G.    | Kentzer, C. P.      | McMasters, J.        |
| Chipman, R.          | Green, K. A.        | Kenworthy, M. J.    | McQuillan, F. T.     |
| Clark Jr., J. W.     | Grina, K. I.        | Klopfer, G. H.      | Meccier, R. A.       |
| Coate, R. E.         | Hadley, S.          | Knacke, T. W.       | Mehalic, C. M.       |
| Cochrane, J. A.      | Hakkinen, R. J.     | Koenig, D. G.       | Mendoza, J. P.       |
| Cohen, R. L.         | Hall, G. F.         | Kohlman, D. L.      | Mersh, A. H.         |
| Conner, D. W.        | Hallock, J. N.      | Kotansky, D. R.     | Mertaugh Jr., L. J.  |
| Corning, G.          | Ham, N.             | Kraft, G. A.        | Metzger, F. B.       |
| Cutnberston, R. D.   | Harris, R. B.       | Kuehner, W. N.      | Middleton, W. D.     |