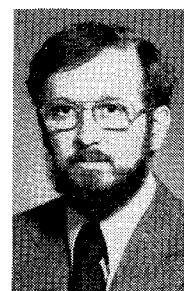
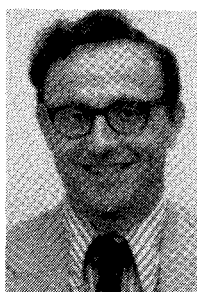
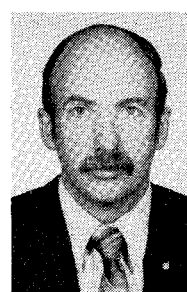


**Robert E. Duffy****Franklin E. Eastep****Lars E. Ericsson****Ronald A. Hess****Harry H. Heyson****Craig D. Simcox****E. David Spong****Thomas M. Weeks****T. Y. Yang**

The 1985 Team, a Weather Report, and R&M

Robert E. Duffy

Robert E. Duffy is an Associate Professor of aeronautical engineering and astronautics at Rensselaer Polytechnic Institute. Dr. Duffy received his degrees from Rensselaer. He has worked as an aeronautical engineer at Wright-Patterson Air Force Base, as a research engineer at Grumman Aerospace Corporation, and as a consultant to numerous corporations. He is currently the technical director of Panafight Corporation. His professional society affiliations include membership in the American Helicopter Society, the American Society of Mechanical Engineers, and the AIAA, in which he is an Associate Fellow. An author of over 45 articles and papers, Professor Duffy is currently investigating non-steady flow effects on the aerodynamic characteristics of rotorcraft as a member of the ARO Rotorcraft Center of Excellence at Rensselaer.

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, an 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, he has been the principal thesis advisor for 5 doctoral students and over 25 master'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, an Associate Fellow of the AIAA, and a member of the AIAA Structural Dynamics Technical Committee.

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 the 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 AIAA 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 is an Associate Professor in the Department of Mechanical Engineering at the University of California, Davis. He received 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. In 1976, Dr. Hess joined the staff in the Flight Systems Research Division of NASA Ames Research Center. At NASA, he conducted research in the areas of aircraft handling qualities, control/display and design, and manual control theory. In the fall of 1982, he assumed his present position at the University of California, Davis.

Dr. Hess' current research interests lie in the areas of automatic and manual control of aircraft. He is a Member of the AIAA and Sigma Xi, and an Associate Editor of the *IEEE Transactions on Systems, Man and Cybernetics*.

Harry H. Heyson

Harry H. Heyson earned his B.Ae.E. cum laude, at the Polytechnic Institute of Brooklyn in 1949. He received his M.S. in aeronautical engineering from Virginia Polytechnic Institute in 1958. He joined the staff of NACA's Langley Laboratory in 1949. His research at NACA and NASA has resulted in over 70 papers on the theoretical and experimental aspects of helicopter and V/STOL induced flowfields, ground effects, and wind-tunnel wall effects, as well as on innovative new aircraft concepts. He is a frequent lecturer in university short courses and helicopter safety seminars.

Mr. Heyson is currently the Vehicle Integration Manager in the Langley Research Center's Aeronautical Systems Office. He oversees studies of future aircraft, both civil and military, in speed ranges from low subsonic to supersonic. He is an Associate Fellow of the AIAA and a member of the American Helicopter Society.

Craig D. Simcox

Craig D. Simcox received a 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 was employed at NASA Ames Research Center from 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 on 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 an efficient means of noise suppression. He is currently Noise Technology Laboratory Chief. Dr. Simcox is a Fellow of the AIAA.

E. David Spong

E. David Spong is a propulsion manager in the Advanced Aircraft Division of the McDonnell Aircraft Company. Currently, he is responsible for the integration of propulsion and thermodynamics systems into advanced aircraft. He has over 20 years experience in airbreathing propulsion system design and development with both airframe and engine companies, including the F-15 and F-4 projects. He received a B.Sc from the University of London, England in 1960, a M.Sc from the University of Missouri, Rolla in 1968, and a S.Sc from Washington University, St. Louis in 1972. Dr. Spong is a Member of the AIAA and a past member of the AIAA Airbreathing Propulsion Technical Committee.

Thomas M. Weeks

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

He was assigned in 1972 to the Analysis Group attached to the Aeromechanics Staff working on transonic wind tunnel wall interference. 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 (advanced technology demonstrator) Program at the Air Force Wright Aeronautical Laboratories. Dr. Weeks is an Associate Fellow of the AIAA.

T. Y. Yang

Henry T. Y. Yang is a Professor and Head of the School of Aeronautics and Astronautics at Purdue University. He received his B.S. from National Taiwan University in 1962, his M.S. from West Virginia University in 1965, and his Ph.D. from Cornell University in 1968. He has been teaching and researching at Purdue since 1969. His areas of specialty are aircraft structures, dynamics, and materials. He has authored and co-authored 65 archival journal articles plus several dozen conference proceedings papers in these areas. He is an Associate Fellow of AIAA.

AS we begin our 22nd year of publication of this Journal, our theme will be that of seeking as yet unexplored (or at least unreported) areas of aircraft technology to supplement our traditional material. We are encouraged in this endeavor by our success last year in receiving numerous papers in the area of weather hazards. One author was prompted to state that this Journal is now "the premier Journal in aircraft icing." We hope that the numerous articles on weather hazards will be of significant value to you.

For some time now, we have been especially seeking good papers in the area of Reliability and Maintainability (R&M) of aircraft. The response has not been overwhelming. It is certainly not a traditional subject for the Journal. Nevertheless, it remains a subject of great concern for commercial and military aircraft applications. One of the most urgent needs is a sound economic analysis process leading to clear investment guidance. Should we put our R&M dollars into design, production, test, or training? In carrying out such analyses, are we employing the latest technology, for example, in integrated fault isolation, detection, identification? Do new support equipment developments integrate early into aircraft R&M programs or even carry their own R&M program? Are field lessons learned on a particular system resulting in real reliability growth? Can we afford not to specify full mission profile (simultaneous environment) testing of new components? Such issues as these should be discussed in the pages of this Journal. Unfortunately, the R&M analyst is probably not even aware of this outlet and forum. As a Journal reader you should take it upon yourself to contact these analysts in your organization soon and convince them of the merits of publishing their valuable results in the *Journal of Aircraft*.

We will welcome any suggestions you may have regarding new or unexplored subject matter for your Journal. What would you like to see covered in these pages that currently is not?

The 1985 Team, pictured above, has been selected and approved by the Publications Committee. They are highly dedicated to providing prompt, succinct, and accurate reviews of your submitted papers. They may be contacted to provide answers to your questions on any matter related to publication in the Journal. I depend heavily on their professional attention to the review process in assuring fairness, quality, and timeliness. They have joined with me in seeking papers in areas thus far only lightly covered in the Journal. They solicit your ideas. Please look them up at meetings and discuss your ideas with them.

We're trying a new approach to identifying and obtaining papers from appropriate meetings. Authors presenting papers in aircraft-related sessions will receive a memo from us asking them to review the scope of the Journal and, if their papers

appear to them to be appropriate, to send them to Dr. Weeks for "log-in" and review. Papers out of scope will be forwarded to the appropriate Journal Editor. This procedure has resulted in a 30% increase in submittals in 1984. The idea for this approach came from Elaine Camhi, our highly talented Managing Editor, and my thanks go to her for attending to the details.

While on the subject of thanks, please note that our capable Senior Editor, Rick Horgan, has left AIAA. Until a replacement can be found, Elaine will pick up the load. We hope that this won't last long. We'll miss Rick's help and attention to detail. I've already mentioned Elaine's creativity and willingness to juggle many spinning plates. If you have a particular question about your paper, I'd appreciate it if you'd not bother Elaine but call or write me instead (or contact the Associate Editor assigned to your paper). As Director of the Editorial Department, Norma Brennan continues to amaze me with her professional skill and personal touch. Norma carefully applies the direction given by the Publications Committee, fully responsive to the cost and schedule imposed and to the idiosyncracies of the Editors-in-Chief, and gets the job done (as if by magic). My hat is always off to Norma.

Elaine is ably assisted by her staff, including Editorial Assistant Karen Goodstein, Journal Art Director Janet Hill,

and Charlotte Parrott, who handles composition. Many thanks to all of these capable people. We don't see them at meetings. If you visit the new Headquarters location, please look them up.

The Publications Committee has grappled with many important issues this year under Bill Heiser's guidance. I would like to especially recognize Dr. Billy McCormac of that Committee for his suggestions regarding the active search for good papers on atmospheric hazards. Dr. Craig Simcox, one of our Associate Editors, got the ball rolling.

If you check the inside front cover, you'll note our International Board of Editors. These individuals serve in their respective countries in the role of AIAA representatives for the Journal. Authors may contact them with questions of style, grammar, content, etc. They also seek good papers representing current significant work in their countries. The Journal welcomes submittals from all countries.

Finally, I come to our Reviewers, whose names (as of October) appear below. They were selected by our Associate Editors for their ability to provide objective, comprehensive reviews. We owe the quality of the Journal to these dedicated individuals.

Thomas M. Weeks
Editor-in-Chief

Reviewers for the *Journal of Aircraft*—1984*

Aiken, E.	Cenko, A.	Edwards, J.	Hunt, B.	Lomax, H.
Amiet, R.	Chamberlain, J.	Ehlers, F.	Huttsell, L.	Lundry, J.
Anderson, A.	Chambers, J.	El-Aini, Y.	Iliff, K.	MacCready, P.
Anderson, J., Jr.	Chamis, C.	Englar, R.	Inger, G.	MacMiller, C.
Anderson, R.	Chapman, G.	Engle, R.	Iverson, J.	Maddalon, D.
Anderson, S.	Chappel, L.	Ensminger, R.	Jaran, C.	Mahapatra, P.
Andersson, A.	Chen, H.	Erickson, J., Jr.	Jobe, C.	Maine, R.
Ashley, H.	Chen, L.	Erickson, L.	Johnson, B.	Malcolm, G.
Bader, B.	Chen, R.	Eversman, W.	Johnson, E.	Malmuth, N.
Balena, F.	Chipman, R.	Farassat, F.	Johnson, F.	Malone, J.
Ball, C.	Christophel, R.	Farmer, M.	Johnson, V.	Manning, S.
Bantle, J.	Chyn, W.	Feddersen, R.	Johnson, W.	Marchman, J.
Barnwell, R.	Clark, J., Jr.	Feiler, C.	Jones, D.	Margason, R.
Bartlett, D.	Colby, S.	Fiorentino, A.	Jones, K.	Mark, J.
Bennett, G.	Cook, T.	Frink, N.	Jones, M.	Martin, G.
Bennett, R.	Coons, Z.	Fry, E. B.	Joppa, R.	Maskew, B.
Berens, A.	Cosner, R.	Fung, K.	Kamman, J.	Mason, W.
Bergum, N.	Cota, G.	Gambill, J.	Kaufman, H.	Matthews, D.
Berrier, B.	Cronkhite, J.	Garrett, R.	Kayten, G.	Mazzawy, R.
Bigelow, J.	Crowder, J.	Giesing, J.	Kazlauskas, J.	McAllister, W.
Bland, S.	Cruse, T.	Glaser, F.	Keller, J.	McCarty, J.
Bobbitt, P.	Cunningham, H.	Gleason, E., Jr.	Kemp, W.B., Jr.	McGlynn, H.
Bower, W.	Cunningham, M.	Goldschmied, F.	Kjelgaard, S.	McGrew, J.
Bowman, J.	Curry, R.	Goorjian, P.	Koch, C.	McIntire, W.
Boxer, E.	Curtiss, H., Jr.	Graham, R.	Kraft, B.	McIntosh, S.
Boyden, R.	Cuthbertson, R.	Grandt, A., Jr.	Kraft, G.	McLafferty, G.
Braman, K.	Davis, S.	Greitzer, E.	Kraft, R.	McMasters, J.
Bresnahan, D.	De Young, J.	Gupta, N.	Kraus, E.	Meece, C., Jr.
Brooks, C.	DeJarnette, F.	Guruswamy, G.	Kubota, H.	Mehta, U.
Brown, P.	Deye, D.	Hackett, J.	Kushman, K.	Melnik, R.
Brown, S.	Dill, G.	Hall, R.	Kutler, P.	Messina, A.
Bryson, A.	Dill, H.	Hardulce, R.	Labosky, V.	Meyer, R., Jr.
Burcham, R.	Dillner, B.	Hermann, P.	Lamar, J.	Middleton, W.
Bushnell, D.	Dogget, B.	Hess, G.	Lan, C.	Mikkelsen, D.
Calico, R., Jr.	Dollyhigh, S.	Hess, R.	Lange, R.	Miller, S.
Camell, B.	Drake, J.	Hicks, P.	Lansing, D.	Millet, M., Jr.
Carlson, H.	Dring, R.	Hinson, B.	Laughlin, T.	Mills, G.
Carlson, L.	Driver, C.	Howell, T.	Lekoudis, S.	Mineck, R.
Carmichael, P.	Dubell, T.	Hsu, T.	Levy, D.	Miranda, L.
Carmichael, R.	Dvorak, F.	Hudak, S., Jr.	Liebeck, R.	Montoya, L.
Carnell, B.	Eckstrom, C.	Hudson, D.	Lissaman, P.	Mook, D.
Carr, L.	Edward, L.	Hughes, N.	Lo, C.	Moore, B.

*This list represents those names supplied by the Associate Editors and Editor-in-Chief.