

A Successful First Year for *JTHT*

THE reaction of the thermophysics and heat transfer community to the *Journal of Thermophysics and Heat Transfer (JTHT)* has been extremely positive. The decision by the AIAA Thermophysics Committee and the AIAA Publications Committee to start a new archival journal has proven to be timely and correct. The need to improve technical exchange in the field is supported by the fact that 282 papers were submitted to *JTHT* as of December 31, 1987. Fifty-seven percent of the submissions originated from meetings preprints. The response to *JTHT* has been so strong that we plan to substantially increase the number of pages published later this year. The *Journal of Thermophysics and Heat Transfer* already has about 1000 subscribers.

Because of the extensive experience of the editorial team, the peer review process has functioned very efficiently. Over 400 reviewers in the field of thermophysics and heat transfer have volunteered their services to ensure the success of *JTHT*. Prospective authors may be interested in knowing that the average time between the receipt of a manuscript and the decision to revise it was 2.2 months for the articles appearing in the October, 1987, issue.

A Full-Spectrum Publication

It should be re-emphasized that *JTHT* is a full-spectrum publication in the field of thermophysics and heat transfer, a breadth illustrated by the following list of pertinent topics:

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|----------------------------------|---------------------------------|
| Aerothermodynamics | Radiative heat transfer |
| Re-entry | Surface interchange |
| Thermal protection | Absorbing-emitting media |
| Low density | Multiple scattering |
| Laser interaction | Nongray analysis |
| Ablation | Multidimensional |
| Plumes | Coupled with conduction |
| Computational | Coupled with convection |
| Thermal control | Conduction/phase change |
| Heat pipes | Contact conductance |
| Thermal modeling | Composite materials |
| Electronics cooling | Inverse problems |
| Large space structures | Conjugate problems |
| Contamination | Nonlinear problems |
| Cryogenics | Analytical techniques |
| Insulation | Melting/solidification |
| Nonintrusive diagnostics | Convective heat transfer |
| IR signatures | Forced convection |
| Remote sensing | Natural convection |
| Laser techniques | Mixed convection |
| Particle sizing | Internal/external flows |
| Scattering techniques | Boiling/condensation |
| Thermophysical properties | Numerical heat transfer |
| Thermodynamic | Finite difference |
| Transport | Finite element |
| Optical/radiative | Parallel processing |

A discipline-oriented publication, *JTHT* presents both original contributions of a fundamental nature and application-type papers. Analytical, numerical, and experimental approaches are all encouraged. Papers on the topics of aerothermodynamics, thermal control, and numerical heat transfer are especially encouraged. Although *JTHT* is published by AIAA, papers are not restricted to aerospace topics and authors from the international community are invited to submit papers.

Accuracy of Numerical Solutions

The question of accuracy and validation of numerical solutions has become a topic of discussion in many technical communities. In March 1986, the *ASME Journal of Fluids Engineering (JFE)* announced the following policy: "The *Journal of Fluids Engineering* will not accept for publication any paper reporting the numerical solution of a fluids engineering problem that fails to address the task of systematic truncation error testing and accuracy estimation." The *ASME Journal of Heat Transfer* has the policy that "no paper containing numerical solutions will be considered for review which does not contain a systematic assessment of numerical errors." The need to establish a *formal policy* for *JTHT* is under study. For the present, prospective authors should use the *JFE* policy as a guideline. The editors and reviewers will remain the final judges. Comments on this topic from authors and readers are welcome.

1988 Editorial Team

The editorial team includes Associate Editors and members of the Editorial Advisory Board. The Associate Editors are responsible for the technical evaluation of manuscripts, and the burden of maintaining quality rests predominantly with them. Photographs and biographies of the 1988 team are included in this issue, and I encourage you to contact them at technical meetings and discuss your views of *JTHT* with them.

The stature of the editorial team of *JTHT* is confirmed by the honors and awards that members have recently received. These include: membership in the National Academy of Engineering, AIAA Fellow, NASA Exceptional Scientific Achievement Medal, ASME/AICHE Max Jacob Memorial Award, and a named professorship.

AIAA Headquarters Move

Recently, AIAA relocated its headquarters from New York, N.Y. to Washington, D.C., and this has caused some unavoidable disruptions in staff operations and delays in journal publications. AIAA staff expect to make up some lost time each month and be back on a normal schedule in just a few months. The new Bedford typesetting facility in Washington should help to reduce publication times. Meanwhile, we appreciate the patience of our authors and subscribers.

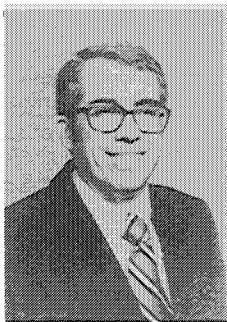
Appreciation

I would like to express my personal thanks to the authors who have chosen *JTHT* as the vehicle for their research work. I also want to thank the reviewers who have contributed their time to ensure the quality of *JTHT*. Their names are listed in this issue. Dr. John E. Francis, who transferred from the *AIAA Journal* to help *JTHT* get started, retires after serving a two-year term as Associate Editor. I will miss his thoughtful comments and encouragement.

In its short history, *JTHT* has had three managing editors (Bob Inman, Kathy Felix, and Bill O'Connor) and two senior editors (Scott Coffel and Heather Ames). These changes have occurred because of the move to Washington. Norma Brennan, Director of the Editorial Department, provided continuity during the move and assistance at all stages of *JTHT*'s development. My sincere thanks to all these people for helping *JTHT* become a reality.

Alfred L. Crosbie
Editor-in-Chief

Editor-in-Chief



ALFRED L. CROSBIE, Professor of Mechanical Engineering at the University of Missouri—Rolla, received his B.S. in Mechanical Engineering from the University of Oklahoma in 1964, his M.S. in 1966, and his Ph.D. from Purdue University in 1969. He joined the faculty of the University of Missouri—Rolla in 1968, where he was promoted to Professor in 1975. He has been an active researcher in the field of radiative heat transfer since 1964. His current research interests include multidimensional radiative heat transfer, multiple scattering, numerical heat transfer, and laser interaction. Dr. Crosbie was a member of the AIAA Thermophysics Technical Committee (1976-78), he served as Technical Program Chairman for the AIAA 15th Thermophysics Conference (1980), Editor of two thermophysics volumes in the *AIAA Progress in Astronautics and Aeronautics* books series (1981), Associate Editor for the *AIAA Journal* (1981-83), and Chairman of the AIAA Thermophysics Technical Committee (1984-86). He is an Associate Fellow of AIAA, a Fellow of ASME, a recipient of the AIAA Thermophysics Award (1987), and an Associate Editor for the *Journal of Quantitative Spectroscopy and Radiative Transfer* (1979-90). Dr. Crosbie is the author or coauthor of over 60 papers in archival journals.

Associate Editors



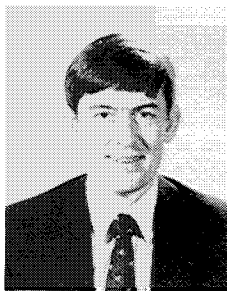
RICHARD P. BOBCO, Senior Scientist with the Space and Communication Group of Hughes Aircraft, received his B.S. in Mechanical Engineering from Northwestern University in 1952 and his M.S. from the University of Colorado in 1955. Prior to joining Hughes Aircraft, he taught at the Colorado School of Mines and was a research specialist with Northrop Corporation. The majority of his work is concerned with the thermal design of spacecraft, particularly the radiant interchange between surfaces. He was a member of the AIAA Thermophysics Technical Committee (1968-70), Technical Program Chairman of the 5th AIAA Thermophysics Conference (1970), General Chairman of the 8th AIAA Thermophysics Conference (1973), and Chairman of the AIAA Thermophysics Technical Committee (1974-75). He is an Associate Fellow of AIAA and a recipient of the AIAA Thermophysics Award (1982). Mr. Bobco is the author or coauthor of more than 20 publications.



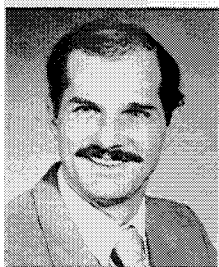
TA-SHEN CHEN, Professor of Mechanical Engineering at the University of Missouri—Rolla, received his B.S. in Mechanical Engineering from National Taiwan University in 1954, his M.S. in Mechanical Engineering from Kansas State University in 1961, and his Ph.D. in Mechanical Engineering from the University of Minnesota in 1966. He joined the faculty of the University of Missouri—Rolla in 1967, where he was promoted to Professor in 1973. His recent research centers around convective heat and mass transfer, natural convection, mixed convection, and wave and thermal instability. Dr. Chen is a member of the AIAA Thermophysics Technical Committee (1986-88) and a Fellow of ASME. He is the author or coauthor of over 80 journal articles and 40 technical papers. He has also contributed a chapter each to two handbooks on heat transfer.



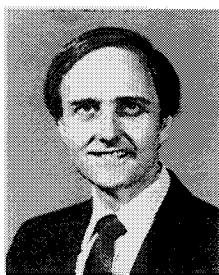
LINDA J. HAYES, Associate Professor of Aerospace Engineering and Engineering Mechanics at the University of Texas at Austin, received her B.S. in mathematics from the College of William and Mary in 1970, and M.S. and Ph.D. degrees in mathematics from the University of Texas at Austin, in 1974 and 1977, respectively. She also received an M.S. in engineering mechanics from the University of Texas at Austin in 1981. Dr. Hayes joined the faculty in 1978 and was promoted to her current position in 1983. Her research interests include algorithm design for supercomputers, the use of parallel processors for nonstructured finite-element grids, and the numerical modeling of heat transfer in biomedical applications. She holds the N. Doug Williams Centennial Teaching Fellowship in the College of Engineering and is a member of the Center for Numerical Analysis and the Texas Institute for Computational Mechanics. Dr. Hayes has helped organize several international meetings on computational mechanics. She is the author or coauthor of over 90 publications including a chapter on supercomputers in the *Handbook of Numerical Heat Transfer*.



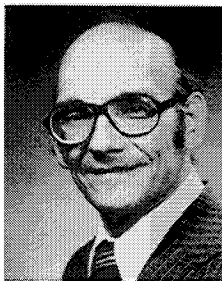
JAMES N. MOSS, Research Leader for Entry Technology at NASA Langley Research Center, received his B.S. in Engineering Science from Tennessee Polytechnic Institute in 1962, his M.S. in Aerospace Engineering from the University of Virginia in 1968, and his Ph.D. in Aerospace Engineering from Virginia Polytechnic Institute in 1972. He also received an M.S. in Engineering Administration in 1988 from George Washington University. Dr. Moss joined NASA in 1962, where his early research assignments dealt with ablating systems. His current research concerns the heating and flowfield description for continuum, transitional, and rarefied flows. Dr. Moss has been active in the AIAA thermophysics community: member of the Thermophysics Technical Committee (1978-80), Technical Program Chairman of the 16th Thermophysics Conference (1981), General Program Chairman of the 20th Thermophysics Conference (1985), Co-Editor of a thermophysics volume in the *AIAA Progress in Astronautics and Aeronautics* book series (1986), and Chairman of the AIAA Thermophysics Technical Committee (1986-88). He is an Associate Fellow of AIAA and the author or coauthor of over 60 publications.



GERALD E. SCHNEIDER, Professor of Mechanical Engineering at the University of Waterloo, Ontario, Canada, received his B.A.Sc. in 1973, M.A.Sc. in 1974, and Ph.D. in 1977 from the University of Waterloo in Mechanical Engineering. He joined the University of Waterloo in 1977 and was promoted to his current position in 1985. Most of his research work centers around thermal constriction resistance, numerical heat transfer, and solid/liquid phase change. He was a member of the AIAA Thermophysics Technical Committee (1977-79, 1982-84) and a member of the AIAA Publications Committee (1979-86). Dr. Schneider is the author or coauthor of more than 70 publications. He was guest editor of the July-August 1986 *Journal of Spacecraft and Rockets* special issue on thermophysics. He is an editor of the *Handbook of Numerical Heat Transfer*, and is a member of the Editor Advisory Board for *Numerical Heat Transfer*.



CARL D. SCOTT, Senior Engineer at NASA Johnson Space Center, received his B.A. in physics from Rice University in 1960 and his Ph.D. in physics from the University of Texas in 1969. He joined NASA Johnson Space Center in 1963 after serving in the Navy. In his early years, he did arcjet plasma and flow diagnostics. He has done experimental and theoretical work in aerothermodynamics: catalytic recombination, reacting flowfields, and associated convective heat transfer. Most of this work is directed toward the Space Shuttle effort. Dr. Scott was a member of the AIAA Thermophysics Technical Committee (1984-86) and was Technical Program Chairman for the 20th AIAA Thermophysics Conference (1985). He is an Associate Fellow of AIAA, the author or coauthor of over 25 technical publications, and Co-Editor of a thermophysics volume in the *AIAA Progress in Astronautics and Aeronautics* book series (1986).

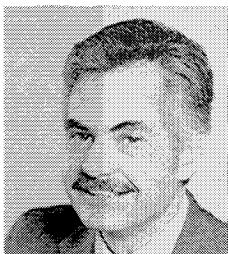


ROBERT SIEGEL, Senior Research Scientist at NASA Lewis Research Center, received his B.S. in 1950 and M.S. in 1951 from the Case Institute of Technology, in Mechanical Engineering, and his Sc.D. in Mechanical Engineering from Massachusetts Institute of Technology in 1953. Before joining NASA in 1955, he worked for General Electric as a heat transfer engineer and analyst. He has been an active researcher in heat transfer since 1950. The majority of his research is centered around convective heat transfer, radiative heat transfer, and solidification heat transfer. He is a recipient of the ASME Heat Transfer Division's Memorial Award (1970) and is a Fellow of ASME. He served as an Associate Technical Editor for the *Journal of Heat Transfer* (1973-83) and received the NASA Exceptional Scientific Achievement Medal (1986). Dr. Siegel is the author or coauthor of over 120 publications, including a textbook on thermal radiation heat transfer.



ALLIE M. SMITH, Dean of Engineering and Professor of Mechanical Engineering at the University of Mississippi, received his B.S. in Mechanical Engineering from North Carolina State University in 1956, his M.S. in 1961 and his Ph.D. in 1966 from North Carolina State University, in Mechanical and Aerospace Engineering. Before joining the University of Mississippi in 1979, he worked for ARO for 14 years as a thermal physics supervisor and as a research manager. His research work has been in the area of radiative heat transfer, particularly the experimental and theoretical understanding of cryodeposits. Dr. Smith has been active in the AIAA thermophysics community: member of the AIAA Thermophysics Technical Committee (1973-75, 1985-87), Chairman of the AIAA Thermophysics Technical Committee (1976-77), and General Chairman of the 10th AIAA Thermophysics Conference (1975). He served as an Associate Editor of the *AIAA Journal* (1975-77) and Editor for two thermophysics volumes in the *AIAA Progress in Astronautics and Aeronautics* book series (1976, 1977). Dr. Smith is a Fellow of AIAA, and recipient of the AIAA Thermophysics Award (1978) and the AIAA Hermann Oberth Award (1985). He is the author or coauthor of over 60 publications.

Editorial Advisory Board



DONALD K. EDWARDS, Professor of Mechanical Engineering at the University of California, Irvine, received his B.S. in 1954, M.S. in 1956, and Ph.D. in 1959 from the University of California, Berkeley, in Mechanical Engineering. In 1959 he joined the faculty of the University of California, Los Angeles, where he was promoted to Professor in 1968 and served as Chairman of Chemical, Nuclear, and Thermal Engineering (1975-78). He received the ASME Heat Transfer Division's Memorial Award (1973) and was the first recipient of the AIAA Thermophysics Award (1976). He was a Technical Editor for the *Journal of Heat Transfer* (1975-81) and an Associate Editor for the *International Journal of Solar Energy* (1983-85). He is a Fellow of AIAA, a Fellow of ASME, and a member of the Editorial Advisory Board for the *International Journal of Heat and Mass Transfer*.



JOHN T. HOWE, Senior Staff Scientist at NASA Ames Research Center, received his B.S. from the University of Michigan in 1950 and his M.S. from Stanford University in 1956, both in Engineering Mechanics. After a brief period with Stanford Research Institute, he joined the Ames Laboratory of NACA. During his 30 years with NASA, he served as Head of Aerothermodynamics, Assistant Chief for the Physics Branch, and Branch Chief for Fluid Dynamics. He is known for his pioneering research contributions to the aerothermodynamics of atmospheric entry, including radiative energy transfer, reactive gas flows, and innovative thermal protection systems. He was a member of the AIAA Thermophysics Technical Committee (1982-84) and an Associate Editor for the *Journal of Spacecraft and Rockets* (1982-84). He is a recipient of the AIAA Thermophysics Award (1986) and a Fellow of AIAA.



TOM J. LOVE, George Lynn Cross Professor Emeritus of Aerospace, Mechanical and Nuclear Engineering and Halliburton Professor of Engineering at the University of Oklahoma, received his B.S. from the University of Oklahoma in 1948, his M.S. from the University of Kansas in 1956, and his Ph.D. from Purdue University in 1963, all in Mechanical Engineering. In 1956, he joined the faculty of the University of Oklahoma, where he was promoted to Professor (1965) and served as Director of the School of Aerospace, Mechanical and Nuclear Engineering (1963-72). He was a member of the AIAA Thermophysics Technical Committee (1970-72), an Associate Editor for the *AIAA Journal* (1972-75), and an Associate Editor for the *ASME Journal of Bioengineering* (1976-79). He is an Associate Fellow of AIAA and a Fellow of ASME. Dr. Love is a recipient of the AIAA Thermophysics Award (1984).



CHANG-LIN TIEN, Martin Berlin Professor of Mechanical Engineering at the University of California, Berkeley, received his B.S. from National Taiwan University in 1955, his M.M.E. from the University of Louisville in 1957, and his M.A. and Ph.D. in 1959 from Princeton University. He joined the University of California, Berkeley, in 1959, where he was promoted to Professor in 1968. He served as Chairman of Mechanical Engineering (1974-81) and as Vice Chancellor-Research (1983-85). He was a member of the AIAA Thermophysics Technical Committee (1970-72), General Chairman of the 7th Thermophysics Conference (1972), General Chairman of the AIAA 12th Aerospace Sciences Meeting (1974), and Editor of a volume in the *AIAA Progress in Astronautics and Aeronautics* book series (1973). He is a recipient of the ASME Heat Transfer Division's Memorial Award (1974), the AIAA Thermophysics Award (1977), and the ASME/AIChE Max Jakob Memorial Award (1981). He is an AIAA Fellow, an ASME Fellow, and a member of the National Academy of Engineering. He is an Editor for the *International Journal of Heat and Mass Transfer* and for *Experimental Heat Transfer*, and an Associate Editor for the *Journal of Quantitative Spectroscopy and Radiative Transfer* (1971-89).



RAYMOND VISKANTA, W.F.M. Goss Distinguished Professor of Engineering at Purdue University, received his B.S. from the University of Illinois in 1955, and his M.S. in 1956 and Ph.D. in 1960 from Purdue University, all in Mechanical Engineering. After a brief period with Argonne National Laboratory, he joined the faculty of Purdue University, where he was promoted to Professor in 1966. He was a member of the AIAA Thermophysics Technical Committee (1972-75), General Chairman of the 2nd AIAA/ASME Thermophysics and Heat Transfer Conference (1978), and Editor of two volumes in the *AIAA Progress in Astronautics and Aeronautics* book series (1979). He is a recipient of the ASME Heat Transfer Division's Memorial Award (1976), the AIAA Thermophysics Award (1979), and the ASME/AICHE Max Jacob Memorial Award (1987). Dr. Viskanta is an Associate Fellow of AIAA, a Fellow of ASME, and a member of the National Academy of Engineering. He was an Associate Editor for the *Journal of Quantitative Spectroscopy and Radiative Transfer* (1969-72) and a Technical Editor for the *Journal of Heat Transfer* (1981-87). He is a member of the Editorial Board for the *International Journal of Heat and Mass Transfer* and *Experimental Heat Transfer*.



GERALD D. WALBERG, Chief of the Space Systems Division at NASA Langley Research Center, received his B.S. in 1956 and M.S. in 1961 from Virginia Polytechnic Institute and State University and his Ph.D. in 1974 from North Carolina State University. He heads the organization responsible for aerothermodynamics of advanced space vehicles, research on advanced space energy concepts, and systems analysis of integrated spacecraft and space-transportation concepts for future NASA missions. Dr. Walberg began his NASA career in 1957 and, before assuming his current position in 1980, carried out research on transonic aerodynamics and aeroelasticity, re-entry heating, ablation, and hypersonic aerothermodynamics. He is a past Associate Editor of the *Journal of Spacecraft and Rockets* (1980-82) and a Fellow of AIAA. He received the NASA Medal for Outstanding Leadership in 1983.

Reviewers for the *Journal of Thermophysics and Heat Transfer*—1987*

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|------------------|-------------------|------------------------|---------------------|---------------------|
| Adams, J. C. | Blackwell, B. F. | Chu, D. | Epstein, M. | Guymon, G. L. |
| Ahern, J. | Bledjian, L. | Chul, P. | Faeth, G. M. | Habib, I. S. |
| Aiken, E. | Blick, E. F. | Chung, B. T. F. | Faghri, M. | Haji-Sheikh, A. |
| Alario, J. P. | Bohn, M. S. | Churchill, S. W. | Fairey, P. W. | Hall, D. F. |
| Alkidas, A. C. | Brant, D. N. | Cima, R. M. | Farhadieh, R. | Hamilton, D. C. |
| Almgren, D. W. | Brennan, P. | Class, C. R. | Farouk, B. | Han, J. C. |
| Alred, J. | Brewer, E. B. | Cline, M. C. | Farrell, J. B. | Han, L. S. |
| Amano, R. S. | Brewster, M. Q. | Cole, K. D. | Felske, J. | Hansen, C. F. |
| Anderson, E. C. | Briggs, D. G. | Collicott, H. E. | Fisher, S. S. | Hansman, R. J., Jr. |
| Anderson, L. P. | Brokaw, R. | Collins, R. | Fisher, W. | Harari, I. |
| Antoniuk, D. | Brosmer, M. A. | Comini, G. | Fiveland, W. A. | Harpole, G. M. |
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| Arpaci, V. S. | Buckius, R. O. | Coriell, S. R. | Fletcher, L. S. | Harvey, J. K. |
| Azad, F. H. | Bui, T. T. | Couvillion, R. J. | Florschuetz, L. | Hasan, M. M. |
| Bainbridge, B. | Cagliostro, D. | Cox, R. L. | Foster, R. C. | Haslett, R. |
| Baker-Jarvis, J. | Caledonia, G. | Cunnington, G. R., Jr. | Frederking, T. | Hassan, H. A. |
| Balakrishnan, B. | Calia, V. | Cunnington, G. R., III | Fried, E. | Hermance, C. E. |
| Baliga, B. R. | Calvert, F. | Curran, D. G. T. | Fu, E. P. H. | Hermina, W. L. |
| Barozzi, G. S. | Campbell, D. H. | Currie, T. | Fukuda, M. K. | Hermesen, R. W. |
| Batra, R. C. | Carey, G. F. | Curry, D. M. | Gaugler, R. E. | Hickox, C. E., Jr. |
| Bau, H. H. | Carey, V. P. | Davy, W. | Gebhart, B. | Hill, J. S. F. |
| Baum, H. | Catton, I. | DeJarnette, F. R. | George, A. H. | Hippensteele, S. |
| Bayazitoglu, Y. | Cercignani, C. | Derry, S. M. | Ghia, K. N. | Hollands, K. G. T. |
| Beck, J. V. | Cerza, M. R., Jr. | DeWitt, D. P. | Ghiaasiaan, S. | Hollworth, B. R. |
| Bejan, A. | Chan, S. H. | Dhir, V. K. | Gilmore, M. R. | Homsy, G. M. |
| Belz, R. | Chen, C. F. | Diller, T. E. | Glassford, A. P. | Horn, D. |
| Bergles, A. E. | Cheng, K. C. | Dougherty, R. L. | Glicksman, L. | Horne, R. N. |
| Bershader, D. | Cheng, P. | Drolen, B. L. | Gnoffo, P. A. | Howe, J. T. |
| Bert, C. W. | Cheung, F. B. | Dulikravich, G. | Green, M. J. | Howell, J. R. |
| Bertin, J. J. | Chin, E. | Eberhardt, D. S. | Greenwood, T. | Hrycak, P. |
| Bhutta, B. A. | Chiou, J. P. | Edwards, D. K. | Gregory, J. | Hsieh, C. K. |
| Biolsi, L. | Chow, L. C. | Efferding, L. E. | Greif, R. | Hsu, C. T. |
| Bird, G. A. | Christoph, G. H. | Emanuel, G. | Grosshandler, W. L. | Hsu, I. C. |
| Bizzell, G. D. | Chrusciel, G. T. | Emery, A. F. | Guceri, S. I. | Huang, S. C. |

*This list represents names received through October 1987. We regret any inadvertent omissions.

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|--------------------|------------------|------------------|----------------------|------------------------|
| Humphrey, J. A. C. | Lefebvre, A. H. | Nelson, H. F. | Sadunas, J. A. | Thornton, E. |
| Hurlbut, F. C. | Lehtinen, A. M. | O'Brien, J. | Salita, M. | Throckmorton, D. |
| Hustvedt, D. | Leidenfrost, W. | Oden, J. T. | Sauer, H. J., Jr. | Thynell, S. T. |
| Ikemi, D. K. | Lewis, H. F. | O'Hare, J. E. | Schubert, G. | Tiederman, W. G. |
| Imber, M. | Li, C. P. | Olfe, D. B. | Schulz, R. J. | Tien, C. L. |
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| Jaffe, R. L. | Litkouhi, B. | Ostrach, S. | Shapiro, H. | Vafai, K. |
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| Jones, J. J. | Lordi, J. A. | Park, J. J. | Singh, R. | Walker, J. S. |
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| Kamotani, Y. | Manoff, M. | Peterson, G. P. | Smith, A. M. | Watson, R. O. |
| Karwe, M. V. | Marto, P. J. | Pletcher, R. H. | Smith, T. F. | Weston, K. C. |
| Kaviany, M. | Masek, R. V. | Plumb, O. A. | Snider, A. D. | White, L. W. |
| Keefer, D. | Mattick, A. T. | Podzimek, J. | Soliman, H. M. | White, S. M. |
| Keltner, N. R. | Mayle, R. E. | Ponnappan, R. | Somers, R. R. | Wilcox, W. R. |
| Kennon, S. | Mazzola, T. A. | Potter, J. L. | Spalding, D. B. | Wilkes, K. E. |
| Kim, K. S. | McAlees, S. | Poulikakos, D. | Sparrow, E. M. | Williams, F. A. |
| Kinney, R. B. | McGregor, R. D. | Prager, R. C. | Springer, G. S. | Williams, S. |
| Kline, R. | McGregor, W. K. | Prasad, V. | Srinivasan, J. | Witte, L. C. |
| Knight, C. J. | Medford, J. E. | Price, E. W. | Starling, K. | Wolf, C. J. |
| Koppenwallner, G. | Mellor, A. M. | Proctor, C. L. | Steen, P. H. | Wood, B. E. |
| Korkan, K. | Menguc, M. P. | Prusa, J. | Steward, D. | Woods, J. L. |
| Korpela, S. A. | Merriam, R. | Ramachandran, N. | Stewart, R. B. | Yang, K. T. |
| Kosson, R. L. | Merrigan, M. | Ramadhyani, S. | Stewart, W. E., Jr. | Yang, W. J. |
| Kraus, A. D. | Metzger, D. E. | Ratzel, A. C. | Stout, M. E. | Yao, L. S. |
| Kraus, H. G. | Mikic, B. B. | Reddy, J. N. | Strieder, W. C. | Yao, S. C. |
| Kreid, D. K. | Mitchell, J. W. | Reddy, K. C. | Stroud, C. W. | Yeh, L. T. |
| Kroliczek, E. J. | Modest, M. F. | Reed, J. | Sucec, J. | Yos, J. M. |
| Kuehn, T. H. | Moffatt, R. J. | Reed, R. A. | Suryanarayana, N. V. | Young, F. |
| Kulacki, F. A. | Moore, G. | Reilly, J. P. | Sutton, W. H. | Yovanovich, M. M. |
| Kumar, A. | Morgan, K. | Reismann, H. | Swann, R. T. | Yuan, S. W. |
| Kuttler, J. R. | Morrison, J. H. | Rish, J. W., III | Symington, J. | Yucel, A. |
| Lai, C. L. | Moutsoglou, A. | Rodgers, J. T. | Tabakoff, W. | Yuen, W. W. |
| Langlois, W. E. | Mulholland, G. | Roux, J. A. | Taghavi, K. | Zardecki, A. |
| Law, C. K. | Mulligan, J. C. | Roy, R. P. | Tamma, K. K. | Zien, T. F. |
| Lee, D. B. | Muntz, E. P. | Rubinsky, B. | Tanzer, H. J. | Zoby, E. V. |
| Lee, H. O. | Nansteel, M. W. | Ruff, G. A. | Tauchert, T. R. | Zumwalt, G. |
| Lee, S. C. | Nelson, D. A. | Sadhal, S. S. | Tezduyar, T. | |

Notice to Subscribers

We apologize that this issue was mailed to you late. As you may know, AIAA recently relocated its headquarters staff from New York, N.Y. to Washington, D.C., and this has caused some unavoidable disruption of staff operations. We will be able to make up some of the lost time each month and should be back to our normal schedule, with larger issues, in just a few months. In the meanwhile, we appreciate your patience.

AIAA Manuscript Review Process

This description of AIAA manuscript review procedures is given so that authors, reviewers, and readers will better understand the paper selection and publication process. The first step in manuscript evaluation is an examination by the Editor-in-Chief of papers submitted to the journal. The Editor-in-Chief first tests the manuscript for the several criteria of subject scope, archival editorial style, apparent technical validity, topical importance, timeliness, relationship to prior publication, conciseness, appropriate references, and length. Precise requirements are given on the inside back cover of each journal issue.

Formal Review

If it passes these first tests, the paper is sent to that journal's Associate Editor with the most direct knowledge of the subject matter and of expert reviewers in the field. The Associate Editor then evaluates the paper according to the same criteria and, in most cases, has the paper sent to two or more reviewers in the field for confidential review. The review report form, reproduced here, is designed both to encourage the reviewer's objectivity and to ensure the thoroughness of his or her evaluation.

Considerable significance is attached to the review reports. Each reviewer is asked to judge the technical validity of the manuscript and the extent of its advance beyond work previously published. The reviewer is asked also for advice as to whether the paper merits publication in an archive journal. However, the decision to publish, to require major revision before publication, or to reject for reasons cited lies first with the Associate Editor and ultimately with the Editor-in-Chief.

It takes a minimum of several months (at least three) after receipt of the manuscript to accomplish the evaluation and review steps discussed above.

Revision or Rebuttal

The next step is up to the author. If the paper has been re-

jected or if extensive revisions have been requested which the author believes are incorrect or unwarranted, he or she is entitled to submit a point-by-point rebuttal to the Editor's statement of reasons and the reviewers' comments. The rebuttal then is analyzed by the Editors, and a final decision is made, although there may be a need for an additional review cycle. Authors who revise their papers must make an effort to do so within the stated time period.

A reviewer who feels strongly that a particular paper should not be published may choose to write his or her criticism as a Technical Comment. The author then will be allowed to write a closing response for publication in the same issue as the Comment.

Formal acceptance will not occur until the author has complied with all of the revision requests (if any) made by the Associate Editor and has prepared the paper in AIAA archival style. (Or the Associate Editor may accept the author's rebuttal, as described above.)

Acceptance and Publication

When a paper is formally accepted, it will be scheduled for publication in a forthcoming issue, and the author will be so informed. Depending upon the number of papers awaiting publication and projected size of issues, this may require that papers be scheduled several issues ahead. When feasible, papers will be published in the order of their original receipt.

Galley proofs will be sent to authors for correction and release approximately two months prior to publication. At that time, authors will be told for which issue their papers are tentatively scheduled. In order to allow for late or non-return of galleys by authors and to provide the flexibility to meet issue-length and topic-mix constraints, issues will be over-scheduled by about 25%. Thus, there will always be a certain number of papers held over for the next issue. All authors and co-authors receive a complimentary copy of the issue in which their papers appear.



American Institute of Aeronautics and Astronautics Confidential Review Report

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The paper/synopsis needs% reduction. Concise presentation is important in any case. Please indicate what material can be deleted, shortened, or covered by a readily available reference.

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Precise, informative, less than twelve words.

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Proper and specific summary of objectives, contents, major results, and conclusions; 100 to 200 words.

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Readily understandable and useful as data or for design. Please point out unnecessary figures, especially photographs, that can be deleted, as well as any errors or deficiencies.

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Please return the original Review Report, signed letter, and manuscript to the Associate Editor (large manuscript envelope enclosed).

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