The AIAA Journal and You

More than ten years have elapsed since the American Rocket Society and the Institute of Aeronautical Science joined forces to become the most prestigious and progressive professional aerospace society in the world. The American government and American aerospace industry in this decade provided an historic abundance of not only "firsts" but also "onlys," which have benefited mankind and continued the pre-eminence of American technology. These included the Apollo program; the large subsonic jet transports; the universal acceptance of American made jet transports; a successful deterrent arsenal; both civilian and military information satellites; and now finally a space transportation system is under development. European industry has contributed to this golden age of aerospace with not one but two supersonic transports. There also have been, more recently, some tremendous disappointments: the failure to produce an American SST, and a gradual cutback in the American space program, with its unfortunate impact on employment of talented aerospace personnel. These events also affected the resources available to the AIAA for servicing its members, but of direct interest here is the role of technical publications. The Publication Committee identified a large number of problems and considered many innovations, some of which already have been adopted. However, to determine the reaction of the memberships to these concepts, the AIAA undertook its most ambitious poll since its formation.

The results of the survey were published in the October issue of Astronautics & Aeronautics; the reader is referred to that issue for the details. I wish to dwell instead on just a few of the hundreds of excellent unsolicited comments that we received, each one of which exhibited intense interest in making the AIAA publications as successful as possible. They were interesting to us not only for their specific suggestions, but in cases where there were arguments for some specific change, there were also arguments for a diametrically opposed change. However, there were subtleties in their arguments which are important to consider for the future.

In general, there was no large mandate for change in the sense of restructuring the journals, or extending the use of synoptics, author-prepared copy, or miniprints. Selective dissemination of documents faired even less well; less than half would subscribe even if the costs were only \$20 a year.

We are not surprised at the over-all result, since there is usually a tendency to be against change. As one reader put it:

"... it is about time to forget about synoptics, miniprints, SDD and other similar experiments, and get on with the business of printing a) serious journals, b) readable journals, and c) clearly written articles in a dignified way."

Other readers were attracted toward change, for example:

"The possibility of joining with other professional societies to operate one economically and professionally viable information dissemination system is indeed attractive. Surely this is a proper function. . ."

Some wondered about the motivations for change:

"... more like campy library science than a response to genuine technical need."

But, many encouraged consideration and trials of all feasible cost reduction processes, even miniprints or author-prepared manuscripts. As one respondent put it:

"Try everything. Don't be ashamed to fail. Stay within our budget."

For economic and other reasons, a number of readers object to subsequent publication of reprints, since:

"...good papers are published at meetings and available months earlier."

"... only original unpublished articles be published in full,"
Many readers feel that the journals are their primary contact
with technology, and value them for their breadth and diversity:

"... enjoy browsing through the range of subjects offered in a typical issue of the AIAA Journal."

"The greatest benefit received from the journals is their diversity. There is no such thing as a technical specialist today in the literal sense of having one narrowly defined discipline or area of endeavor, at least, not in the working troops."

"Actually, I am not interested so much in my own discipline as that of other disciplines which can expand and improve my own."

Others strongly support their archival role:

"The journals provide one with a source library on 'aerospace technology,' a storehouse of available knowledge which if not totally and immediately assimilated, at least provides perspective of that very complex and many faceted field."

"The archives of technical literature are more than work tools; they are one of the monuments of our profession frequently lasting longer and having more significance than some of the hardware considered by too many to be the only end product. Compromise in this area...[is]...a compromise in the values and in the stature of the AIAA as a professional society."

But some say that the day of journals has passed:

"Archival journals are outmoded, wasteful, and of little value to a technology advancing at the pace of ours. The information in full papers is generally a year or more out of date and hence serves as a historical rather than a current indication of the state-of-the-art."

There is clearly a need to continue to search for solutions which satisfy both the archival and the rapid dissemination needs expressed above:

"... many members are firmly anchored to the idea of a prestige or archive-type of journal, but another group is equally pointed to providing access to as much information as possible. If both groups are ever to be satisfied, another option will have to be added..."

The influence of the copying machines was felt:

"I used to feel that I had to have my own personal copy of AIAA Journal, etc.—that I needed such references at my fingertips. But, after filling several filing cabinets and bookcases with my copies, I finally realized that a few hours wait on an order from our library was not intolerable—the world would—and did—wait."

Others would not wait:

"Having a personal professional library saves tremendous amounts of time. Besides, the expense is income tax deductible."

Reactions to synoptics also are split:

"I, for one, would like to have immediately at hand an abstract or synoptic of every AIAA paper in my field of interest; I can go to a library or wait for the detailed copy."

"I don't like synoptics. I feel cheated after reading them."
"I do find that the synoptics are easier to understand than are the full papers."

As mentioned above, Selective Dissemination of Documents faired poorly. Perhaps the reason is best put by this reader:

"SDD would appear to be of value only to the very narrow specialist who wants to peruse every scrap published in his tiny area of expertise. I am interested in many, many of the topics on your suggested list—I want to read and retain selected papers in each area, but I certainly do not want to see all papers in each of the subject categories. Nor do I want to see all papers in any single category. Provide a system that lets me do the selecting!"

On the other hand, many readers, including the one above, want some form of current awareness. A number advocated a system for selection from abstracts.

The subject matter of the journals drew many comments. Some wanted more practical papers:

"Society is too research oriented. Engineers are not scientists."

"Get down to earth and start publishing worthwhile papers, ones that earn their money."

"Ihave had occasion to use advanced techniques, particularly in structure analysis. I quickly found that methods... in AIAA journals cannot be used for any government funded program because those methods have not been thoroughly tested or given any official recognition. Only the company's own tested methods could be used when work was called for beyond the standard textbooks. In short, the learned articles appearing in AIAA journals were only intellectual pastimes apparently intended by the authors as a means of getting their name in print. This is not to deny that such articles can be of interest, but their practical use I have found to be very limited and I cannot afford to pay the extra price for something which is not of actual use to me."

Others fault narrowness, obscuration, and the lack of relevance of a large percentage of the publications, for example:

"I do not subscribe to any of the journals because the subjects covered are *too* specific about ridiculous subjects, and are written in such technical gobbledygook that unless you are a specialist in that field it is *impossible* to glean even a meager knowledge of what the article is about."

We have already reacted to this comment. One of the reasons for adoption of Synoptics was to permit presentation of results with a minimum of jargon and a maximum of clarity. Another comment on utility was:

"The AIAA Journal usually publishes articles pertaining to various disciplines, but not usually articles on how these disciplines are put together to make designs which are economic, effective, and a success performance wise."

Perhaps this reader was not acquainted with the Journal of Spacecraft and Rockets, the Journal of Aircraft, or the Journal of Hydronautics.

In opposition to the handbook approach quoted above, "Anyone who thinks design, manufacture, and service of aircraft has advanced to a handbook art is extremely naive. This research effort could be very well used in application to products which can operate more acceptably in the environment of today."

Others want more open mindedness on scope and the unconventional:

"But you are not covering fields outside the conventional present day thinking. The unconventional and often disputed should be covered in a journal."

Finally, I wish to turn from our readers to our authors: 347 comments were received in reply to reasons for submitting papers to non-AIAA journals. The table in the next column gives the leading reasons. Note that one-sixth objected to the policies and reviewers. A typical comment was:

"I submitted a paper in March 1970 to the AIAA Journal and indicated that I would pay page charges. This was published in May 1971. Absolutely terrible delays. I

| | Reason | Number of responses |
|----|--|---------------------|
| 1. | More appropriate for another journal | 153 |
| 2. | Don't like AIAA editorial policies and reviewers | 61 |
| 3. | Invited by another journal editor | 35 |
| 4. | Wider distribution; wanted more diversified | |
| | readership | 32 |
| 5. | Given at another meeting | 29 |
| 6. | Lower or no page charges | 11 |
| 7. | Rejected by AIAA | 10 |
| 8. | Faster publication | 9 |

submitted a paper to another journal in February 1971 and it was published in June 1971."

Although we subscribe to the policy of prompt review and publication, there is a paradox in that our publication policy favors the author: instead of outright rejection, the authors are encouraged to revise their paper to meet the objections of the reviewers. This, of course, delays publication. During the past year this Journal has successfully reduced publication time; we are printing full length papers 9 months after receipt, even with revisions! However, some readers favor a more restrictive review policy:

"I consider publication and dissemination of technical information to be the first duty of the AIAA. This should not be done in a shabby fashion, as authors who can publish elsewhere then will . . . and the journals will become second rate."

and

"An overabundance of mediocre (or even, good) printed material is as much a communication problem as is a dearth of technical documentation."

The question of altering the present acceptance policy will undoubtedly be examined again this coming year.

I have been able to give only a few examples of the many excellent pertinent comments which we received. All comments which pertain to the journals have been circulated to the AIAA Journal Associate Editors, in order to give them your insight, and to permit them to react positively, where possible. In addition, all comments have been circulated in their entirety to the Publications Committee, which has the responsibility for responding to them by directing future policy changes.

What is the role of publications in the future? That depends. The aerospace industry primarily converts new concepts and inventions into practical devices and services. The over-all government and consumer market determines the level to which these goods and services will be purchased. If there are no new concepts or inventions to be exploited, then aerospace will become a mature technology which emphasizes evolutionary changes. The technical publications will reflect this maturity, with the emphasis on codification of existing knowledge and incremental advances. However, new concepts or inventions spawned from inside or outside the industry can drastically alter this picture by satisfying either new demands or old demands at greatly improved cost or reliability. Then, the AIAA technical services becomes the spearhead of new knowledge for the purpose of rapid dissemination and multiplication of information. The technical publications must be an important link in promoting these new ideas and breathing into them life, and pursuing the ensuing excitement regarding their impact. Thus, we will continue to seek out the new, the unusual, and the prophetic, but without sacrificing quality improvements of our knowledge about the practical.

As you know, our Associate Editors serve a term of three years. This year sees the expiration of the terms of Herbert Rauch, who was associate editor in astrodynamics, Leith Potter, who was associate editor in experimental aerodynamics, and Joseph Kempner, who was associate editor in structures. On behalf of both readers and authors, I wish to commend them for the excellence of their work. Their diligence went far beyond that expected, and their efforts helped maintain the pre-eminence of this Journal.

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Thanks also go to the dynamic duo of Ruth Bryans and Anne Huth through a hectic year of changes in compositors and strikes, plus their tremendous work in sorting out the publication survey. At my end of the scene, Irene Scanzillo dispatched over a thousand papers promptly. Finally, thanks go to our many

reviewers listed below, who served conscientiously in anonymity, and who are the backbone of the quality of the technical papers which we published.

January 1973

George W. Sutton Editor-in-Chief

Reviewers for AIAA Journal, September 1, 1971–August 31, 1972*

Abbett, Michael Abel, John Achenbach, Jan D. Acrivos, Andreas Adams, John C. Adelman, Howard M. Alber, Irwin E. Almroth, B. O. Anderson, John D., Jr. Anderson, Mel S. Anderson, William J. Andrew, Lowell V. Armen, Harry A. Armenakas, Anthony E. Ashley, Holt Ashton, J. E. Back, Lloyd H. Bainum, Peter M. Baker, A. J. Barba, Peter Barnwell Richard Barrett, Earl W. Bauer, Andrew B. Baum, Eric Beckstead, M. Beckwith, Ivan E. Bengston, Roger Bennett, James A Bershader, Daniel Bert, Charles W. Billig, Frederick S. Blake, William K. Blottner, Frederick G. Bobbitt, Percy J. Boericke, R. Bogdonoff, Seymour M. Boggs, Thomas L. Boley, Bruno A. Bossel, Hartmut Bowen, Stuart W. Boyd, D. E. Boyden, Richmond P. Bradshaw, Peter Braslow, Albert L. Bronfin, Barry R. Brown, Robert Brown, R. T. Brush, D. O. Bryson, Arthur E., Jr. Bullis, Robert H. Buonaolonna, Victor Burggraf, O. R. Burstein, S. Z.
Busby, Henry R., Jr.
Bushnell, David
Bushnell, D. M. Byers, David C. Callis, Linwood B. Calogeras, James E. Cann, G. L. Carlson, Harry W. Carlson, Leland A. Carter, James E. Caughey, T. K.
Caveny, Leonard H.
Cebeci, Tuncer
Chandiramani, K. Chang, I-Dee Chang, Paul Chapkis, Robert L. Charwat, Andrew F. Cheng, Hsien K Cheng, Hsien K.
Chervinsky, A. P.
Chiang, Fu-Pen
Chien, K. Y.
Childs, Morris E.
Chow, Wen-Lung
Chu, K. S. Clare, Thomas A. Clark, John A. Clark, Kenn E. Clough, Ray W. Cohen, Norman S. Collins, Donald J. Collins, Jon D. Conly, J. F. Conway, Harry D.

Cool, Terrance A.

Copper, John

Corrsin, Stanley Crandall, Stephen H. Croopnick, Steven R. Crosbie, Alfred L. Crow, Steven Cunningham, Leland Curry, Donald M. Daiber, J. W. Danberg, James E. Davies, D. E. Davis, Randall T. Dayton, Allen D. DeBra, Daniel B. Decher, Reiner Deem, Gary S. Deitlein, L.
Dellinger, Thomas C.
Demetriades, Anthony
Denison, M. Richard Derr, Ronald L. Devoto, R. S. DeVries, G. DeWitt, David P. Deyst, John J. Dicks, J. B. Dietlein, Lawrence F. Dolton, Theodore A. Donaldson, Coleman duP. Dove, Lyle L. Dugundji, John Dunn, Michael G. Dwyer, H. A. Dym, Clive L. Easton, C. R. Eckert, E. R. G. Eckert, Hans U. Economos, Constantine O. Edelbaum, Ted N. Edwards, D. K. Eisley, J. G. Ekelund, Lars-Goran Ellington, H. 1. Ellinwood, John W. Elliott, David G. Emanuel, George Erdogan, Fazil Evans, John S Evans, R. Michael Evensen, David A. Fassio, Franco Fay, James A. Fegley, Ronald W. Feldhuhn, Robert Fitch, James R. Fix, George Flanagan, Joseph E. Flandro, Gary A. Florschuetz, Leon W. Folb, Reece
Forsberg, Kevin
Fox, Jay
Francis, John E.
Frauenthal, James C. Freymuth, Peter Fulton, Robert E. Gallagher, Richard H. Garrison, G. W. Gater, R. L. Geers, Thomas L. Gerber, Nathan Gerberich, W. W. Gerstein, Melvin Giesing, Joseph P. Gloersen, Per Goethert, Bernhard H. Gold, Harris Goldstein, Raymond Gran, Robert L. Granatstein, Victor L. Green, J. E. Greif, Robert Grohs, Gerhard Guderley, G. K. Guenther, Rolf A. Guentner, Rolf A. Guman, William Gupta, Roop N. Gururaj, P. M. Guthart, H. Hackett, James E.

Haefeli, Rudolph C. Haldeman, Charles W. Hall, J. Gordon Hama, Francis R Hammond, Charles E Hankey, Wilbur L., Jr. Hanson, Ronald K. Harson, Ronald K Harney, Donald J. Harris, Julius E. Harsha, Philip T. Harvey, C. Arthur Harvey, C. Arthur Hassan, H. A. Hasselman, Timothy Hayami, Richard A. Hayes, Wallace D. Heffron, W. Gordon Herrmann, George Hickman, R. S. Hiers, R. S. High, M. D. Hitzl, Don Hoffman, Joe D. Hoffman, Myron A. Hohenemser, K. H. Holcomb, Stanley Holt, Maurice Hong, Yong S. Hopkins, Edward J. Hopper, Fred W. Houseman, John Howell, Larry J. Huang, Nai Chien Huber, Paul W. Hunt, David A. Incropera, Frank Infante, E. F. Inger, George R. Isakson, Gabriel Ito, Y. Marvin Jack, John R. Jaffe, N. A. Jaffe, Peter Jalufka, Nelson W. Jaslow, Howard Jazwinski, Andrew H. Jischke, Martin C. Johns, D. J. Johnson, R. A. Jones, Harry L. Jones, Jim J. Jones, Robert E. Jordan, Peter F. Junger, M. C. Kalnins, Arturs Kamel, Hussein A. Kana, Daniel D. Kelley, Henry J. Kemp, Joseph H. Kemp, Nelson H. Kendall, Jim, Jr. Kendall, Robert M. Kicher, Thomas P. Kiefling, Larry A. King, Merrill K. King, William S. Kinslow, Max Kistler, A. L. Klineberg, John M. Klunker, E. Bernard Ko, William L. Koester, J. K. Koester, J. K. Koestler, Judith G. Kolpin, Marc A. Koopman, David W. Korkegi, Robert H. Kornhauser, Alain Kubota, Toshi Kuhn, Gary D. Kumar, R. N. Kuo, Kenneth K Kurzhals, Peter R. Kushida, Raymond Kussoy, Marvin J. Laganelli, A. L. Lane, Frank Lardner, Thomas J. Larson, Victor Laufer, John

Lederman, Samuel Leehey, Patrick Leissa, Arthur W. Leitmann, George Leonard, Donald A. Leonard, R. Leon Leonard, R. Leon Lew, Henry Lewellen, W. S. Lewis, Clark H. Lewis, John Li, T. Y. Libby, Paul A. Libove, Charles Librizzi, Joseph Liddle, Sidney G. Likins, Peter Lindberg, G. M. Lindberg, G. M. Lion, Paul M. Lipfert, F. W. Liu, Joseph T. C. Livingston, F. R. Lobb, R. Kenneth Lorell, Kenneth Loyalka, S. K. Lubard, Stephen Ludwig, Frank Lykoudis, Paul S. Lyon, Richard H. McCarthy, F. Desmond McCauley, William D. McCroskey, William J. McDonald, Henry McIntosh, Samuel C. McLellan, Alden McMahon, Howard M. Maahs, Howard G. Maestrello, Lucio Mager, Arthur Maidanik, Gideon Mao, M. Mar, J. W. Margulies, Gabriel Marquet, Don Marshall, Francis J. Martellucci, Anthony Martin, Edward Martin, John B. Masson, Bruce
Mastrup, F. N.
Masur, E. F.
Mateer, George G.
Maus, J. R.
Mavripilis, F. Mayers, Jean Mayne, Arloe W., Jr. Mead, D. J. Meecham, W. C. Meintel, Alfred J. Mellor, George L. Melnik, Walter L. Melosh, Robert Messiter, Arthur F Meyer, Rudolph X. Micheli, P. L. Miller, David R. Mirels, Harold Modi, V. J. Moffat, Robert J. Molar, Robert J.
Molarz, Edward J.
Moon, F. C.
Moore, Franklin K.
Morel, Thomas
Moretti, Gino
Morgan, Harry L., J Mortensen, R. B. Moss, James N. Mueller, Thomas J. Murch, Walter G. Murdock, J. Murdock, J.
Murman, Earll M.
Murphy, Charles H., Jr.
Murphy, John D.
Nachtsheim, Philip R.
Nash, John F. Nash, John F. Nayfeh, A. H. Nelson, H. Fred Nelson, Richard Nene, Vilas D. Nichols, Lester D.

Noll Richard B Norfleet, G. D. Norstrud, Helge Novotny, Jerome L. Nowinski, J. L. Oates, Gordon C. Oliver, David A. Olson, Mervyn D. Oppenheim, Antoni K. Ordway, Donald E. Ormsbee, A. I. Osgerby, I. T. Ozisik, M. N. Page, Robert H. Paidoussis, M. P. Pallone, Adrian J. Papailiou, D. D. Pate, S. R. Pate, S. R.
Pedersen, P. Terndrup
Perrone, Nicholas
Peters, Carroll E.
Pister, Karl
Povinelli, Louis A.
Powell, Dave Price, Donald A., Jr. Price, Donald A., J Price, Edward W. Pringle, Ralph, Jr. Pugh, E. R. Rae, William J. Ragsdale, W. C. Rakich, John V. Rao, D. M. Rao, S. S. Rasmussen, Mauri Rasmussen, Maurice L. Reeves, Barry L. Reichenbach, R. E Reilly, James P. Reismann, Herbert Reismann, Herbert Renard, Marc Reshotko, Eli Reyhner, Theodore A. Rhodes, Robert P., Jr. Ried, Robert C., Jr. Ritter, Alfred Ritter, Alfred
Robbins, Howard M.
Roberts, Melvin L.
Rodden, William P.
Rosa, R. J.
Roshko, Anatol
Ross, C. H.
Rossettos, John N.
Rott, Nicholas
Ryan, Norman Ryan, Norman Sackett, Lester L. Saric, William S. Sarofim, Adel F. Sauerwein, Harry Sauer wein, Harry Sawyer, R. F. Schetz, Joseph A. Schiff, L. B. Schindel, Leon H. Schlee, Frank H. Schmit, Lucien A., Jr. Schofield, K. Schreiber, Paul W Sciammarella, C. A. Sears, W. R. Sebacher, D. S. Sedney, Raymond Seebass, A. Richard, III Seikel, George Sforza, P. M. Shi, Yun-Yuan Sibulkin, Merwin Sichel, Martin Sieron, Thomas R. Skudrzyk, E. J. Smith, A. M. Smith, A. M. O. Smoot, Leon D. Sobel, Lawrence H. Sollis, Albert Sonin, A. A. Sorenson, Harold W. South, Jerry C., Jr. Spaid, Frank W. Sparrow, E. M. Spriggs, John H. Springer, George S.

Srawley, J. E. Srinivasan, A. V. Standish, Charles J. Stanisic, Milo M. Stearman, Ronald O. Stegen, Gilbert R. Stein, Manuel Stepniewski, Wieslaw Z. Stetson, Kenneth F. Stevens, W. A. Stickler, David Stine, Howard A. Strand, Torstein Stricklin, James A. Sturtevant, Bradford Sun, C. T. Swann, Robert T. Swigart, Rudolph Talbot, Lawrence Tauchert, Theodore R. Taylor, J. E. Tennekes, H. Tetervin, Neal Theisen, Jerome G. Thomas, Mitchell Tiomas, Mitchell Tien, C. L. Ting, Lu Ting, T. C. T. Tobak, Murray Toda, Norman F. Tong, Pin Trezek, G. J. Tulin, M. P. Turcotte, Donald L. Turner, M. Jonathan Uberoi, Mahinder S. Vaglio-Laurin, R. Vaicaitis, R. Van Driest, E. R. Varsi, Giulio Velkoff, H. R. Venkatraman, B. Ventres, C. S. Victoria, Keith J. Vidal, Robert J. Vigneron, F. R. Vincent, Thomas Viskanta, Raymond Von Jaskowsky, Woldenar F. Von Rosenberg, Charles Waggoner, Alan Wah, Thein Waldman, George Wang, K. C. Wang, L. S. Ward, John F. Watson, Ralph D. Watson, Velvin R. Way, John Wegener, Peter P. Wehofer, S. Weinbaum, Sheldon Weingarten, Victor I. Weinstein, Leonard M. Weisshaar, T. A. Westwater, J. W White, Frank M. White, Jerry E. White, Pritchard H. Whitehead, Allen H. Widnall, Sheila Wiebelt, J. A. Wilberg, Robert Wilkenson, Michael T. Wilkenson, Michael T.
Williams, Edgar P.
Williams, F. A.
Williamson, R. K.
Williamston, R. K.
Willoughby, Paul G.
Womble, M. Edward, Jr.
Wong, Howard
Woodward, Frank R. Wygnanski, Î. J. Yu, Yi-Yuan Zabusky, N. J. Zakkay, Victor Zauderer, Bert Ziegler, Hans Zukoski, Edward E.

L'Ecuyer, M. R.

^{*}Because it is difficult to include the Reviewers for September, October, November, and December in this issue of the Journal they will be listed with the reviewers for 1973 in the January 1974 issue.