

Editorial

THROUGHOUT the year, the AIAA editorial board acts virtually invisibly, sorting papers, selecting reviewers, making decisions, and communicating with the outside world indirectly. So the time has come to account for our activities to our readers, authors, and reviewers and to discuss some of the broad implications of the policies to which we try to adhere, namely review procedures, some comments on our new index, the urgent question of page charges, and the scope of the journals.

Review Procedures

The *AIAA Journal* is devoted mainly to research papers rather than application type papers, which are the province of the *Journal of Spacecraft and Rockets*, *Journal of Aircraft*, and *Journal of Hydronautics*. We recognize that many of the papers in the sister journals do contain the results of original research, but the more general type of research paper properly belongs in the *AIAA Journal*. Unless there is a more general change in policy, we will try to maintain this delineation. Therefore, the occasional paper which is submitted to the *AIAA Journal* but which appears more appropriate to the other three will be referred to them, with, of course, the permission of the author. Incidentally, the volume of papers received by the *AIAA Journal* during 1968 remained about equal to 1967, namely, about 1200 papers, technical notes, and technical comments.

The remaining papers are then processed in the normal manner; that is, the paper is assigned to an associate editor who selects reviewers; the reviews are obtained and transmitted to the cognizant associate editor; he then reaches an initial decision, and this entire process should take three months at a maximum! During the past year, we conducted a statistical survey to determine how closely we were achieving this schedule. The results were disappointing: the average time was $4\frac{1}{2}$ months (of course the *AIAA Journal* authors already know this). A major part of the average delay was due to reviewers; instead of the desired 3 weeks for a review, the average time to review was 8 weeks. A typical response from an overdue reviewer is that *his* paper is never reviewed promptly. Such logic is of course circular and in the end self-defeating. So we therefore appeal to all reviewers to try to meet our 3-week schedule. As for the part of the delay caused by associate editors, for the most part they have moved toward meeting their obligations in maintaining the schedule.

Of the total papers received, only about 25% are rejected. One can therefore argue against any review; just print all manuscripts as received. To examine this argument, one must inquire as to the disposition of the other 75%; 90% of these are revised in some manner, either minor or major. In these cases, the purpose of the review is to improve the quality of paper either in substance or understandability. Often the authors' initial manuscript does not contain the

thoughts that he really wishes to convey, and a good review will bring this out. In other cases, an important error was made in the paper. Here, the review prevents public embarrassment. Of course, some authors contend that the review process merely puts the reviewer in the position of substituting his own prejudices for those of the author, and in many instances he is probably correct. Nevertheless, we take the position that this dialogue between author, reviewer, and editor results in a better paper. And, we firmly believe that all science is a dialogue—that all assumptions should constantly be questioned and improved; the review process is merely one of the beginning steps in this dialogue.

As for the 25% which are rejected, these fall into two categories: pedantic and incorrect. The question as to whether some research or calculation really contributes new technical knowledge is subtle, and there are many borderline decisions. Generally, the reviewer or editor does indicate to the author desirable extensions to his work which generalize the results and make them more valuable. The other category contains work which is believed to be incorrect; for example, the use of an assumption that has previously been shown to be incorrect or inadequate, or an inconsistent or incorrect set of equations, etc. In many cases, the results of such work nevertheless yields beautiful agreement with experimental data. We take the position that the results of incorrect research, even when they yield agreement with data or previous correct results, are at most fortuitous and at worst numerology and really do not belong in the *AIAA Journal*. However, a paper that reports the careful reexamination of assumptions previously believed to be correct, together with a hypothesized new set of assumptions with supporting evidence, *does* deserve to be published. Again, this is a question of a dialogue between two viewpoints. However, the *AIAA Journal* is not Aristotelian—we do not permanently advocate any particular technical philosophy, for this would prohibit publication of the really new advances which a technically oriented society must pursue to achieve progress.

Index

The four journals of the American Institute of Aeronautics and Astronautics previously had separate indexes. Although each of the journals covered different areas of application, each contained papers from several identical disciplines, for example, aerodynamics, propulsion, guidance and control, and structures. Although this structuring of the journals is probably more convenient for current use, it does raise problems for information retrieval, since, for a given discipline the indexes of all four journals must be searched. To simplify this retrieval process, a single index of all four journals will be issued this year on an experimental basis. Each of the journals uses the same list of topic headings, which was drawn up by the four Editors-in-Chief in consultation with others. We encourage your comments on the applicability

of the joint index and on specific improvements in the topic listings.

Page Charges

As you know, we encourage authors to submit the page charges to their respective institution for payment as a normal part of reporting the results of research. These page charges constitute about one-third the cost of publication and distribution. This is really quite a bargain; for the normal cost of printing a report with limited distribution, 10,000 copies of the *AIAA Journal* are distributed. Unfortunately, the present budget squeeze has motivated some agencies and institutions to "skip" these payments, which if continued will cause the present publications to be altered. One may make the argument that the employing institution does print and distribute research reports to all interested parties and that journal publication is unnecessary and duplicatory.

We take the position that this argument is spurious and in conflict with the democratic process. For example, the "interested parties" are often merely co-contractors from the same agency, and this tends to create a closed ecology in some particular discipline. Furthermore, more than one agency sometimes sponsors research or development in the same field. Are we to develop several different closed ecologies? Is their meeting only to be at the discretion of the agency heads? What about the independent researcher who is performing unsponsored work; is he to be excluded? What happens to the review process and dialogue? To whom does one address a technical comment? The above are just a few examples of some of the problems that such private circulation of technical knowledge can create. However, we take a stronger and more important position: the private circulation of technical knowledge gained from public sponsorship is an anathema to a democratic society. Technical knowledge achieved by public funds should be available to the general public and freely exchanged with other countries (except of course technical design data directly related to particular military systems), and not controlled by any particular channel of communication or bureaucracy. Our problem is that of increasing the rate of flow, timeliness, and availability of technical knowledge. The present format of four bound

journals may change in the future, but the basic concept of public publication of technical knowledge, never.

Journal Scope

We wish to touch, finally, on one of the most important topics under discussion within the AIAA; namely, where are we going? The AIAA is based primarily upon air and space transportation. Insofar as some activities are directly government-sponsored, we are also involved in mission-oriented systems analysis, geared primarily at cost-effectiveness. On the surface, this latter capability could be applied toward modern problems of education, urban renewal, pollution, health, etc., albeit to a more diffuse user. But one must not overlook the basic transportation aspects of the AIAA. Modern air transportation has given rise to a new mobility of the population whereby people may obtain education and jobs away from their roots and yet be only a few hours away from their old friends and family. This is important for all of our domestic problems; for example, new cities can be created, removing the pressures from the old. The other primary transportation problem is that of swiftly moving people, particularly those on lower wages, to and from their place of employment, which means mass surface transportation to some.

There is no doubt that the solution to the transportation and other domestic technical problems depends upon research and finding new answers, all of which will require publication as the means for transmitting this new knowledge. The Board of Directors therefore has agreed that new technical knowledge in fields other than the traditional may be published in the journals of the AIAA to act as a catalyst in the thinking of those technical people who believe that their profession is primarily directed at progress through technology.

Finally, I would like to extend on behalf of the AIAA the thanks and gratitude to our departing associate editors, C. K. Chu, Leonard A. Harris, Wilmot N. Hess, John E. Hove, and J. M. Sellen Jr.; and welcome our new associate editors, Paul S. Lykoudis, Daniel B. Olfe, and Charles H. Kruger.

George W. Sutton
Editor-in-Chief

Reviewers for *AIAA Journal*, October 1, 1967–September 30, 1968*

H. Norman Abramson	Richard R. Auermann	Ferdinand Beer	J. M. Bonnell	Maurice S. Cahn	Paul M. Chung
Jan D. Achenbach	Charles Babcock	Robert Bennett	Ronald E. Bowles	Linwood B. Callis	Stephen J. Citron
Robert Ackenberg	L. H. Back	Arthur S. Benson	James W. Bradley	Morton Camac	Joseph H. Clarke
Jiro Adachi	A. D. Baer	Harold E. Benson	P. Bradshaw	J. C. Camm	W. A. Clayden
Thomas C. Adamson Jr.	Donald Baganoff	H. Bergmann	Kenneth N. C. Bray	Robert Cantrell	Ray Clough
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Vito D. Agosta	E. H. Baker	Daniel Bershader	R. S. Brown	M. T. Chahine	Ira M. Cohen
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Joel R. Alper	J. R. Baron	Robert Bjork	L. L. Bucciarelli	Andrew F. Charwat	R. B. Cole
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R. Anderson	W. T. Barry	Leon Blitzner	George H. Burgin	Ping Cheng	Allan F. Cook II
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Robert R. Archer	Richard G. Batt	S. R. Bodner	Marshall C. Burrows	Wallace Chinitz	Robert M. Cooper
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Jerome Aroesty	Nelson R. Bauld Jr.	Bruno A. Boley	David Bushnell	Walter Christiansen	Robert F. Crawford
Gifford W. Asher	Eric Baum	R. J. H. Bollard	T. P. Byrne	Hugh N. Chu	R. J. Cresci
Holt Ashley	M. W. Beckstead	N. L. Bonavito	Stanley R. Byron	Raymond Chuan	Robert Crisp

* Because it is difficult to include the reviewers for October, November, and December 1968 in this issue of the Journal, they will be listed with the reviewers for 1969 in the January 1970 issue.