

Winds of Change

Three major changes are in the wind for the AIAA Journals that are designed to improve their usefulness to readers. Some are minor and others major, but since all have been the subject of a large amount of work and discussion by the AIAA Publications Committee, the Editors, and the AIAA Staff, it seems appropriate to review these and some of the arguments presented in reaching these decisions.

The Synoptic

The heart of this discussion is the old controversy of "town" vs "gown." In our context it refers to the fact that papers are commonly written in a manner such that only an expert in the same field can interpret and evaluate their usefulness. Furthermore, the more general the results, the more likely the paper to be rated as "significant" by the same specialists. Thus, the results in the paper are likely to be presented in nondimensional form, where the parameters to be used are sometimes ambiguous, even to the specialist. Many papers therefore appear to be obscure, and sometimes trivial. Thus, even if the paper is of tremendous practical importance, this importance is often lost to the practitioner. This gives the appearance that the Journals are catering to those with a compulsion to publish.

In contrast, the practitioner wants to understand new results with the minimum of effort. Often he judges the validity of the paper, not by following the deductive logic contained in the list of assumptions and their justifications, but whether the results appear reasonable. In addition, the practitioner desires quick overviews of progress in related fields; in short, a form of "reportorial" service. We all realize the importance of such services, and the Institute has moved in that direction in several areas; for example, the publication of abstracts in the Bulletin. There are also well-known dangers in reportorial services, in that the regime of validity of results is often not contained in short accounts. We therefore continue to insist on preprints for papers whose abstracts are published in the Bulletin so that the practitioner can obtain the relevant details prior to actual application.

In the same way, the Journals also will strive to provide a similar service. However, the general feeling is to attempt to be more substantive than just printing abstracts. The new concept, originally conceived by Benjamin Pinkel, is called the Synoptic, which presents the *results* of the paper or report in summary, yet usable, form for readers in about two journal pages. We wish to emphasize that the Synoptic is *not a long abstract* in that it does not attempt to summarize the entire paper. In addition it must be *substantive*; the major results are to be presented, together with relevant figures and sketches. To be consistent with the reportorial nature, specialist jargon will be replaced where possible with terms that are understandable to the nonspecialist in the field. To

satisfy the requirement that the details of the work be available to readers, the paper or report on which the Synoptic is based will be sent to AIAA and filed in the library at the Technical Information Service, from which copies can be purchased.

The Synoptic is also not a Technical Note. The purpose of the latter is to publish new or partial results; they are not subject to formal review, as are the Synoptics, and they are supposed to be published speedily. In the past, however, reviewers and Editors often recommended reduction of full-length papers to Technical Notes, which delayed publication longer than intended for the Technical Note, and often longer than for full-length papers. In the new procedure, the Synoptic will be published instead of the full-length paper in such cases, thereby returning the Technical Note to its proper function of reporting new or partial results of immediate interest.

The full mechanics are currently being planned, but the author will have his choice of submitting any of the following:

a) *Synoptic, together with the report on which the Synoptic is based.* In this case, the reviewers and editors will review the Synoptic, and finally approve or disapprove it for publication. They may also recommend that the full-length paper be published instead of the Synoptic.

b) *Full-length paper plus Synoptic.* Here, the reviewers will initially decide whether the Synoptic or full-length paper is to be considered for publication. If the former, the procedure is exactly as in case (a). If the latter, then we will use exactly the same procedure as we have always used for full-length papers.

c) *Full-length paper without Synoptic.* We will *not* require that an author submit a Synoptic with each paper. But the editors, with the aid of the reviewers, will decide whether publication as a full-length paper is warranted or whether it should be revised to a Synoptic. (This replaces the previous procedure of recommendation of reduction to a Technical Note.) If the Synoptic is recommended, it is expected that the author will respond reasonably rapidly.

There will be no effect of Synoptics on the other sections containing Technical Notes and Comments. Thus there will be four sections of each journal: Synoptics, full-length papers, Technical Notes, and Technical Comments, plus occasional survey papers and the invited lectures (Wright Brothers, von Kármán, etc.). The machinery for this change is now being formulated, but we expect it to be operational by October 1971.

Author-Prepared Manuscript

One of the problems faced by many journals is the rapid increase in printing and typesetting costs, which in our case has forced the AIAA to raise its price for publication in 1971.

Clearly, this is self-defeating since, the higher the price, the fewer subscribers and vice versa. What is needed here is a bold change to hold and, if possible, to reduce the cost. In this regard the use of Synoptics in place of many papers should have the effect of first clearing our backlog and then reducing the number of pages and thus the printing cost. However, additional steps seemed to be warranted and were recommended by the AIAA Publications Committee. Under the chairmanship of Julius Lukasiewicz, an economic subcommittee of the Publications Committee made a comprehensive study of our printing costs. The single and largest cost item which could be removed is the cost of typesetting, which is particularly expensive because of the many mathematical expressions. If we were to eliminate this one item by using author-prepared manuscripts, then the savings to the entire AIAA scientific publications program would range from \$50,000-200,000 per year, or up to 30% of the total AIAA scientific publications budget. This savings will permit a reduction in page charges from \$75 to \$60 per page and hopefully in 1972 subscription rates as well.

There is a further technical advantage in author-prepared manuscripts: the author is in complete control of preparation of his manuscript at all times, which will help prevent errors that sometimes occur between galley corrections and printing. Finally, the use of author-prepared manuscripts should eliminate the complete retyping of preprints from single space to double space. The rules for preprints and author-prepared manuscripts will be sufficiently similar to permit the latter to be prepared by corrections to the former, when extensive technical corrections are not required.

We are, of course, concerned about the over-all appearance of the Journals, so this step was not taken lightly; but our main concern is maintaining the Journals for their archival value, and this must be judged in terms of their enduring value because of content, and *not* because of appearance.

Selective Dissemination of Documents

The original concept of SDD was to provide members, instead of a full journal each month, with only those papers in which they had registered an interest; in other words, a "personalized" journal. This was studied briefly a few years ago by the Publications Committee. The main conclusion was that SDD seemed to be a further improvement in member services, but it appeared that a further funded study was

required in order to arrive at the optimum mechanization of the systems *and its costs*. Such a study was proposed by the AIAA to the National Science Foundation, which ultimately decided against the study for financial reasons.

The real impediment for SDD is really quite simple: There is no mechanical machine in existence which is capable of taking, say, 100 stacks of different papers (each of which will have three different category designations out of 140 designations); and 35,000 membership names, each of whom may have requests against one or more of the 140 designations; selecting those papers for each subscriber without duplication; inserting them into an envelope; and addressing the envelope. Since no such machine exists, it is difficult to demonstrate either that the system is feasible or to cost it. There are a number of alternatives, however, and, since the *system* really does not appear to be very difficult either to design or implement, it should be a good challenge to our readers. A limited system study is now under way, funded by the AIAA at a minimal level, and is expected to be complete in 1971.

Appreciations

Once again, it is my privilege to extend the warmest appreciation, on behalf of the readers and authors of this Journal, to our retiring associate editors, Harold Mirels, Robert Vaglio-Laurin, M. J. Turner, and George H. Markstein. Their tireless efforts have helped improve the Journal immensely. We thank each with greatest sincerity. I wish also to welcome our newly appointed associate editors, Mitchell H. Bertram, Stephen C. Maslen, Fred E. C. Culick, and Earl H. Dowell, and hope that they will find their association equally rewarding. Richard H. Battin has graciously agreed to serve for another term. It also is my privilege to express our appreciation to the many reviewers, listed below, whose assistance has helped to maintain our standards of quality.

We also wish to acknowledge the enduring effort of Anne Huth, who kept the papers moving smoothly for all the journals, and of Ruth Bryans who, among her many other duties, also assembled the cost comparisons which led to the decisions of the Publications Committee. Finally, the able assistance of Mrs. Irene Scanzillo was greatly appreciated for the efficient operation at my end of the line.

George W. Sutton
Editor-in-Chief

Reviewers for AIAA JOURNAL, October 1, 1969-September 30, 1970*

Abramson, H. Norman	Bailey, A. B.	Bohachevsky, I. O.	Caughey, T. K.	Clifton, Rodney J.	Cunningham, Herbert J.
Achenbach, Jan D.	Ban, Stephen D.	Bonnell, John M.	Cebeci, Tuncer	Cline, Philip B.	Curle, Gregory S. N.
Adams, John C.	Barba, Peter	Boylan, D. E.	Chaiken, R. F.	Clough, Ray W.	Curtis, Richard
Adelberg, Marvin	Baron, Judson R.	Bradshaw, Peter	Chambers, A. C.	Cochran, Robert A.	Danby, J. M. A.
Adler, Barry K.	Bartlett, Charles J.	Breakwell, J. V.	Chang, Paul	Cogley, A. C.	Danielson, Donald A.
Alfriend, K. T.	Bastress, E. Karl	Brederlow, Gunter	Chang, Y. P.	Cohen, Gerald A.	Davis, Randall T.
Allario, Frank	Baum, Eric	Bristow, M.	Chao, Chi Chang	Cohen, Norman S.	de Baer, P. C. T.
Almroth, B. O.	Beckstead, M. W.	Broadwell, James E.	Chapkin, Robert L.	Cole, Julian D.	DeBra, Daniel
Amazigo, John C.	Beckwith, Ivan E.	Brockett, R. W.	Chapman, Gary T.	Cole, Richard B.	deDoos, Dick H.
Amick, J. L.	Benfield, W. A.	Broding, William C.	Charwat, Andrew F.	Coles, D. E.	Deissler, Robert G.
Anand, D. K.	Berger, Stanley A.	Brook, John W.	Chen, Chuan Fang	Collins, D. J.	Demetriades, Anthony
Anderson, John D., Jr.	Berman, Alex	Brooks, Melvin	Cheng, Hsien K.	Compton, Dale L.	Denery, Dallas G.
Andres, R. P.	Bernhart, Walter D.	Brown, R. T.	Cheng, S. I.	Cooke, J. C.	Denison, M. Richard
Apelt, Colin	Bert, Charles W.	Brown, Robert T.	Chien, K. Y.	Cool, Terrance A.	Der, Joseph
Aprahamian, R.	Bertram, M. H.	Broxmeyer, Charles	Chin, J. H.	Cooper, Paul	Devitt, Edmund B.
Archer, John S.	Bienkowski, George	Brush, Don O.	Chinitz, Wallace	Corrsin, Stanley	Devoto, R. S.
Ariaratnam, S. T.	Billig, Fred	Bryson, Arthur E., Jr.	Chorin, A.	Cory, J. S.	Dewey, C. Forbes
Armenakas, Anthony E.	Bird, G. A.	Burns, A. Bruce	Chou, Shun-Chin	Cravalho, Ernest G.	Deyst, John J.
Aroesty, Jerome	Blackburn, Phillip R.	Bush, William B.	Chou, Y. S.	Crawford, F.	Dickinson, Lionel A.
Asfour, Kamal J.	Blair, Bill	Bushnell, David	Chow, Wen-Lung	Cresci, Robert J.	DiCristina, Victor
Ashkenas, Harry I.	Blair-Smith, Hugh	Bushnell, D. M.	Chu, C. K.	Crimi, Peter	Dirling, R. B., Jr.
Ashley, Holt	Blake, Lynn H.	Bussard, Robert W.	Chu, Wen-Hwa	Crouzet-Pascal, Jacques	DiTaranto, Rocco
Ashton, J. E.	Bloom, Martin	Callens, E. E.	Chung, Paul M.	Culbertson, Jack D.	Dix, Donald M.
Azar, Jamal J.	Blottner, F. G.	Callis, Linwood B.	Clark, Edward L.	Culick, Fred E. C.	Dolton, Theodore A.
Babcock, Charles D.	Bogdanoff, J. L.	Card, M. F.	Clausen, William E.	Culp, Robert D.	Donaldson, Coleman duPont
	Bogdonoff, Seymour M.	Carriere, Pierre	Clemens, P. L.		

*Because it is difficult to include the reviewers for October, November, and December 1970 in this issue of the Journal, they will be listed with the reviewers for 1971 in the January 1972 issue.