

## ***AIAA Journal Policies, Procedures, and Particulars***

**A**FTER many years as your Editor-in-Chief, I thought that it might be appropriate to amplify our procedures to our authors and readers in order to remove some of the mysteries and frustrations. First, the preponderance of the papers submitted to the AIAA journals come from AIAA meetings, both sponsored and affiliated. That is important, because the abstracts are due about 7 months before the meeting. This means that authors who wish to present up-to-the-minute latest results must base their abstracts on their prospective achievements, which does involve some speculation on success, whether experimental or computer simulations. About 5 months later, the preprints are due. In many cases these are prepared slightly more hastily than the authors would have preferred, and so there may be some inadvertent imperfections in the preprint. Hopefully, these are caught in the review process, explained below.

Some of these preprints and other non-preprint manuscripts are then submitted to me, together with a list of suggested reviewers. The poor condition of some papers is amazing. Please number your pages and staple them together, making sure that the manuscript will be held together. A prudent author presents a carefully packaged manuscript so that the reviewer is not surprised by a staple wound or a lapful of loose, unnumbered pages.

Perhaps unwittingly, authors are submitting papers with nonstandard type pitch and lines per inch, thanks mainly to modern dot-matrix and laser printers. Our maximum-length article is 36 units, as directed by the AIAA Board of Directors. Each typewritten page counts as one unit, based on 12 characters per inch, 3 lines per inch, and 1 inch margins. (This corresponds to 9 preprint pages, 12 characters per inch, 6 lines to the inch.) Each illustration counts as one unit. But with modern machinery, one can easily get 15 characters per inch and 4 lines per inch, with narrower margins. Please tell your word processor specialist to use our standards. Incidentally, they are the same standards that are required by most requests for proposals; therefore this should not be regarded as some new or tortuous requirement! If we are unsuccessful in achieving our requirement, we may have to resort to word counting, which will only increase the cost and delay of publications.

Very often the title of the paper is quite poor, in that it describes a technique but gives no hint as to the field (fluid flow, structures, etc.) for which the technique is applicable. Abstracts often do not contain the essence (not even a hint) of the results. The opposite is also found: excessively lengthy abstracts that sound more like an advertisement than an abstract. I also find a few papers with endless figures, of the same parameters, with almost unnoticeable variations. These are possibly important for reports, but can be condensed or summarized for a journal article. Believe it or not, we get several papers a year with *no* return address to which to send the reviews! Perhaps the authors believe that they will next see their paper when it is printed.

After I receive a paper, I send it the next working day to an associate editor who is knowledgeable, but not necessarily an expert, in that field. It is our policy that associate editors are kept anonymous by my office to shield them from authors; but the AE has the option of identifying himself. I should explain how associate editors are selected for their three-year terms. I consult with both the outgoing AE and the cognizant technical committee for that technical discipline. I also consult the AIAA index and the Engineering Index to make sure that the person is publishing in the relevant field. Until recently, I also checked their record as reviewers, to make sure that they are prompt. I intend to reinstitute that procedure this year. I then rank the candidates, and contact the leading candidates

for each position, outlining their duties and responsibilities, informing them that they can expect to receive about one paper per week. It takes up to four hours per week to conscientiously perform this honor.

The associate editor then has up to 3 weeks to assign a paper to three or less reviewers. They can be selected from the author's list of suggested reviewers, the author's references, or by checking any retrieval service such as Engineering Index or Dialog for similar topics. Very often, reviewers are selected by the associate editors' personal knowledge of experts in the area. As a matter of guidance, I suggest that the world's leading experts on the topic NOT be chosen, as they are usually far too busy. Instead, they are asked to seek their disciples, who may have more time to perform a lengthy review. Technical Notes should receive only one short informal review (usually by the associate editor), to permit minimum revision.

The review process itself has become more of a bottleneck during the past several years. When all papers were handled from the AIAA office, a record of reviewers' performance was kept, so that reviewers who had poor records for prompt return of papers could be avoided. When paper handling was delegated to the Editors-in-Chief's offices, this part of the recordkeeping was dropped, although we still keep a record of who they are and publish that each January. When the Institute gives us the computerized paper-tracking system, it will be much easier to keep tabs on reviewers' performance, probably starting with this issue. So, you delinquent reviewers, we will know who you are! Hopefully, you will mend your ways and recall your own anxious moments when you were an author awaiting a decision. Also, associate editors are supposed to prod delinquent reviewers. Some associate editors take the time to telephone prospective reviewers to inform them that a manuscript is on its way. That helps to cushion the shock of the arrival of a manuscript on one's desk, with a one-month suspense deadline.

From my own experience, as well as from reading the reviews that come to my office, a good review can take from 4 to 8 hours, especially when a paper is somewhat marginal. It can take much less time if the paper has a "fatal flaw" or if the paper is really thorough and good. But reviewing a paper can be a lengthy undertaking, as many of you know too well.

In spite of all the care that the reviewer takes in reviewing a paper, the review provides only *advice* to the associate editor. He will look through the reviews and let the authors know what revisions should be made. He will do this on the basis of the reviews received, which can be one, two, or three (sometimes more, if the paper is really controversial). The reviews we get back are also quite mixed. An AE may get back two reviews: the first can state that this is a great paper and should be published immediately; the second review can contain a thorough analysis of the paper, running many pages, which may include a list of errors (conceptual, mathematical, or instrumentation), omitted references in which the same or opposite results were obtained, errors in logic, requests for more examples, etc. Depending on how serious these are, the associate editor may request revisions or decline the paper.

It is always amazing to me how authors react to such a pair of reviews. Since one review recommended prompt publication AS IS, the authors very often will complain that the second reviewer is incompetent, and that we are therefore obligated to publish the paper as is! We also receive the opposite set of reviews: the first reviewer, in one line, may state that the paper should be summarily rejected because it is terrible; the second review contains a lengthy set of comments and suggestions to improve the paper. By reverse logic, should we then decline the paper? The associate editor is also charged

with sifting through the reviewers' comments and letting the author know which, if any, comments should be ignored and which should be taken most seriously. Fortunately, most authors take the detailed reviews seriously and revise their paper accordingly.

I have several incidents each year in which the author does suggest a list of reviewers which includes the country's leading experts. They are chosen to review the paper but turn in negative reviews, often quite lengthy. After transmission to the author, I receive a return letter complaining about the associate editor and the reviewers: that the former is incompetent because he obviously chose incompetent reviewers; and worse yet, he believed them! I also receive complaints that the AE is partial, and letters that threaten to take drastic action, whatever that may mean. For your information, letters that contain the latter are immediately turned over to the AIAA counsel, and usually result in no further action on the paper.

All of this brings up the primary topic: why review at all? We do not review in order to prevent publication of new or controversial ideas. The primary reason is that each paper must be a complete entity that is correctly set in context. We also want to avoid publishing results obtained through genuinely faulty mathematics or procedures. We also wish to avoid becoming a vanity press. We are charged with being an archival publication; each paper must be complete and stand on its own content and merit. Prof. Kamat has added a very important point with respect to reviewers:

There is an obligation of the reviewers, especially the experts in the field. No matter how busy they may be, the experts (especially if they are AIAA members) have an obligation to the technical community at large and to AIAA in particular not to refuse to review papers and not to be delinquent . . . They must realize that the quality of the papers published in the AIAA journal is dependent not only on the authors but also on the people who review them and how conscientiously they discharge their review obligations. On some occasions the AE may be forced to send the paper to a reviewer who may not be the most appropriate person for the paper in question solely because the more appropriate experts have declined to review the paper.

It is next up to the author to revise his paper in accordance with the associate editor's instructions and reviews. It is important that, in the submittal of a revision, a cover letter be provided which explains how each of the comments was handled, and where they are in the paper. This will speed the process of acceptance, as the associate editor can check these over very quickly. If the author merely states that all comments have been complied with, then the AE must search through the paper and find each one, an unnecessary task. Furthermore, such a procedure will avoid the problem of sending the paper out for another round of reviews, and more delay, which I discourage. So please, let us know your changes, and eliminate guesswork on our part. Incidentally, if you disagree with individual comments, your cover letter should explain why.

Upon submission of the revision, the associate editor then has three weeks in which he must make a final decision. It is the policy of the AIAA to err on the side of the author. Thus, if the author has complied with the majority of the comments, the associate editor should approve the paper for publication. This makes some reviewers unhappy, because they have gone to extraordinary effort to point out all of the paper's flaws. But we cannot, nor should we, require revision that will satisfy

every reviewer. That is plainly impossible; even the U.S. Supreme Court has dissenting opinions. In the end, a paper must stand before the technical public. If it is potentially useful, it will be tested by others; if wrong, it will not be used or it will draw a technical comment. The archival literature is thereby largely self-correcting.

If a paper is declined for publication, the author then has a right of rebuttal; I personally read each one I receive. Some rebuttals that I read stonewall the issue by merely stating that the reviewer is wrong or incompetent. Needless to say, that won't do. The rebuttal must go into detail as to why the reviewer and associate editor are wrong. If the rebuttal seems plausible, the AE may then accept the paper or send it for yet another review, together with the previous correspondence. We do want to receive careful, thoughtful rebuttals. We do not decline papers to save money or for any sinister reason. But authors should keep their rebuttals to the point. Some wander all over the topic: their eloquence matches both Shakespeare and Daniel Webster, but it is hard to find the substance.

With respect to the AIAA, this year is both an end and a beginning. AIAA has moved its office from New York to Washington, D.C., and we have lost a great deal of experienced and competent staff, including our managing editor, Kathy Felix. In her place we welcome Bill O'Connor. Fortunately, our director of the editorial department, Norma Brennan, has moved to D.C. and is training a new staff. We also lost the compositors who set the type for the journals, and we bought new composing machinery, for which it will take time to train new people. I wish to thank our two associate editors who have just completed their terms of office: Dr. Chih-Ming Ho and Dr. Christopher Tam. They have both served exceptionally well in their respective fields. In their place we welcome Dr. Krish A. Ahuja and Dr. Mohamed Gad-El-Hak. I also wish to thank all of 1987's reviewers, whose names follow.

We are also very proud of our new effort on Soviet aerospace abstracts, financed through the Office of Naval Research. You may have noticed that we are abstracting topics that are within the scope of all the AIAA journals. This is being done for convenience. Many thanks are due to John Newbauer for this initiative.

George W. Sutton  
*Editor-in-Chief*

