

With Appreciation for a Quarter Century of Service

It is with pleasure that I pre-empt some of this editorial space to congratulate and thank George W. Sutton on the occasion of his twenty-fifth anniversary as Editor-in-Chief of *AIAA Journal*. Dr. Sutton has served in this capacity since 1967, when he succeeded Leo Steg.

During those 25 years the Journal has published 47,580 pages, and Dr. Sutton has been responsible for the review and evaluation of more than 15,000 individual papers. While accumulating those mind-boggling statistics, Dr. Sutton has served the Institute in other capacities as well—for example, he received kudos for his excellent chairmanship of the AIAA 26th Aerospace Sciences Meeting in 1988. He has even

managed to hold “real” (i.e., paying) jobs through the years of his work for the Institute. And yet he remains unflappable as he continues his rigorous work on papers submitted to the Journal.

It is largely through Dr. Sutton’s efforts that *AIAA Journal* has achieved its status as the premier international journal for aerospace research and technology. Once again, we thank Dr. Sutton and wish him many productive editorial years.

Paul F. Holloway
Vice President—Publications

Quality Control

YOUR Editor-in-Chief and Associate Editors do a reasonable job of quality control on the papers that we publish. Only about 60 percent are finally published, and with very few exceptions, all require revision.

We have ferreted out plagiarism. We watch for submissions to multiple journals. We discourage serialized papers; for example, a new case each year or half year using the same equations but changing the boundary conditions. Expert reviewers check the validity of the method and results. We now ask for validation of the results, whether computational or experimental. But we cannot relax, but must always ask questions as to whether and how we can improve our publications. Here is one answer from an ex-subscriber, which provides food for thought:

I no longer subscribe because the quality and practicality of the published papers were suspect. I began to form this opinion after the publication of a paper that I had been requested to review. The theme of the paper was flutter of a cascades. In reality, it was a paper about aerodynamic modeling for engine cascades. The author used the vast majority of his text to describe an inordinately sophisticated aerodynamic model which he coupled with an overly simple (two degrees of freedom) structural model. The flutter analysis seemed to be an afterthought.

I spent considerable personal time making suggestions for improvement. I even reviewed several of the author’s references, especially those that carried the name of his advisor. This reference check revealed the same paper with minor variations. All had been published in different technical journals. I got the distinct feeling of someone publishing for the sake of publishing but not to extend the knowledge of cascade flutter.

Nevertheless, the paper was published without change. That made me curious. How many articles, that I highlighted to read, were really applicable or practical for my work? I soon discovered that too many articles had an academic leaning, sometimes interesting, but not of much use. Magazines like the *Journal of Sound and Vibration* provide more practical advice and information.

I circulated the above to the Associate Editors of the Journal for their reactions. Here are some of their responses:

It is difficult to refute...[I received] a paper based on a Ph.D. thesis with results of little practical significance. It was not that the paper was academic. The contents were not new until the final results were presented for a slightly different set of boundary conditions. [Some] professors feel that a paper based on a Master’s thesis is worth publishing.

A common thread of these “academic” papers is that the computer now makes it a simple matter to present tabulated and plotted results for an infinite variety of “two-degree of freedom” problems. These papers provide little insight into either physics or analysis.

The low quality of literature in Structural Mechanics is not confined to the *AIAA Journal*. The *Journal of Sound and Vibration* may contain “practical results,” but I am not interested in reading results for linear systems that don’t correspond to real problems. Publications have steadily declined in quality over the last twenty years and many of the poor quality papers are submitted by employees, contractors, or grantees.

Since the whole aerospace profession is at a low ebb right now, it is difficult to suggest how the Journal can fight the problem of low quality. I think a number of good authors are discouraged by the delay in publication caused by the large backlog. One way to attack the backlog problem would be to pass a rule that authors of accepted papers must review two papers before submitting another paper to the Journal. This would make authors read at least two papers before rewriting their last one.

Authors often submit papers given at AIAA meetings to the Journal. Most of the time, these papers are too long and not in the format required for a Journal submittal. But some very useful meeting presentations of works in progress and results to date are often mistakenly assumed to be archival material by authors. Such papers should not be submitted until they have been rewritten for the Journal.

Too many papers contain only computer calculations with no attempt to find data to verify the calculations. More experimental papers should be encouraged. The Journal seems sometimes to be becoming another computational journal.

My personal feeling is that an archival paper must contain results that can be used by someone else. This can be data, either computed or experimental, that is of use in aerospace design or development. Or it can be a methodology that can be implemented easily by users; this includes computer methodology. It can be a paper that examines a problem or effect and through analysis or experiment provides insight into it.

On the other hand, I would like to avoid publishing the results of computational exercises, concerning problems of