



Fasten your seat belts, but don't turn off those electronic devices!

The handover of this journal from Brian Thompson resembles an in-flight change of pilots. I have to learn and modify the procedures while the flight continues. Brian and I would hope that the passengers would never notice that there has been any change made in the cockpit. It turns out, however, the craft is also being modified in-flight. In fact, a second craft is being launched and you will get your choice of which one you want to fly on. Then there is the weather forecast...!

Previously a submitted manuscript was evaluated by Brian Thompson after it arrived at his editorial office. He selected the reviewers and sent out copies. When the reviews came back, he determined the fate of the paper and either sent the paper on to SPIE or returned it to the author. Provided the reviewers produced a timely review and any revision was modest, the process of acceptance of a paper was short and sweet.

As I noted last month, the range of topics of articles submitted to the journal has exploded and I hold no pretense that I could knowledgeably assign reviewers for all topics. So, as the new editor of *Optical Engineering*, I assembled a Board of Editors to assign reviewers and make publication decisions. I did this because I think it will enhance the quality of this journal.

In doing so, I have complicated the process. All manuscripts now will be sent to the *Optical Engineering* office at SPIE. The staff will then send me copies of the papers and I will designate an Associate Editor, who will assign reviewers and make the decisions when the reviews are returned. This process should provide a wider range of reviewers that will be able to render more expert options. But the insertion of an additional person in the train of evaluation also lengthens the time required to reach a decision. Not good.

Together with SPIE staff, I have introduced procedures, based on the use of e-mail and the Web, to overcome these difficulties. After a manuscript arrives at SPIE, the submission form, the first page (title page and abstract), and the reference section of the manuscript are scanned and formatted as a PDF file using Adobe Cap-

ture. The PDF file is in a Portable Document Format that can be read by Adobe Acrobat Reader. The file will be attached to an e-mail message and sent to me by the SPIE journals staff for assignment.

After I assign an Associate Editor to a paper, an e-mail message with PDF file attached is sent to him or her by SPIE. The assignment of reviewers takes time, so we are providing the Associate Editors with a number of sources including an internal database of reviewers. Using e-mail, the Associate Editor sends a list of reviewers to SPIE, which sends out the manuscript and accepts the reviews. When the *Optical Engineering* office receives the reviews they are forwarded, using the Adobe Capture technique described earlier, to the responsible editor for a decision.

My purpose in instituting these procedures is to take advantage of the knowledge and experience of busy people by keeping their hassles to a minimum. The entire process from the perspective of the Associate Editor is paperless and, I hope, painless. No manuscript will be sent to the Associate Editor unless he or she decides that the entire paper is needed to make an assignment. As part of their introduction to their new positions, all of the Associate Editors participated in a test run. We uncovered a number of glitches that have been fixed. However, the true test of the new system is currently underway.

What I have just described is the "electronic background" to *Optical Engineering*. In the foreground, another change is occurring: the simultaneous on-line publication of the electronic version of this journal. In point of fact, it isn't quite simultaneous; the e-version will be available about two weeks before the print version. Details on the cost and choices on print and electronic versions will be given elsewhere.

So we are entering a "brave new world" of electronic transaction for refereeing and electronic distribution for publication. As we explore this planet of information and data a whole range of opportunities and problems present themselves. What constitutes peer-reviewed publication? Does it have value? What is the easiest publication format for a researcher? For an engineer? How does one compare the ease and portability of a printed journal with the connectivity of hypertext links in an e-version? Should the electronic version carry an inexpensive color image and the print version a grayscale image? These are some of

the issues to be addressed in the coming months. Remember the most important aspects of this journal are the quality and significance of the information that we publish. It starts with the authors, continues with the Associate Editors and the reviewers, and concludes with you as the final judge of the usefulness of the papers we publish.

So, fasten your seat belts, dear readers, it's going to be

a bumpy decade. There is no need to turn off your electronic devices, since we have no intention of landing this craft. Besides, you're gonna need 'em!

Donald C. O'Shea
Editor