



## A Look Back

In my February editorials during the past 11 years, I have reported on the status of this journal. Each editorial contained a statement of the current activity including the publishing statistics for the previous year accompanied by comments on changes during that time. The basic processes for publishing *Optical Engineering* have changed little since I began as editor. Papers are submitted and reviewed, decisions are made to accept or decline the papers, and those that are accepted are published. However, how we do this has changed dramatically in a little over a decade. In 1998, all of the papers were submitted on paper. They were mailed to SPIE and every week or so I would get copies. I had a graduate student to keep track of them and file the copies in an office next to mine at Georgia Tech. All our business was done by e-mail using Eudora, my mail program, for the database.

For the last few years, the number of papers submitted is twice what we received when I started back in 1998. At that time the number of papers submitted from Asia was two-thirds the number of papers from North America. Now there are 2.4 times as many submissions from Asia as from North America. The papers from the Pacific Rim countries represent 58% of the papers we published last year. This trend is not unique to *Optical Engineering*. Other engineering and science journals have seen comparable trends.

The number of hard copies sent to Georgia Tech slowed in 1999 as the SPIE journals office began to accept papers electronically—20% in that first year. In 2000, the fraction had grown to a half and by 2004 over 98% were sent electronically. At that time the SPIE staff began to query potential reviewers electronically, sending them abstracts of the papers by e-mail. In 1998, the time it took to review a paper, which included mailing a copy of the manuscript, was about three months and the time to publish a paper, once it had been accepted, was around six months. So, back in 1998 it took about nine months between submission and publication if the author promptly revised the paper.

To provide a rapid publication for important papers,

*Optical Engineering Letters* was established in August 2000 and letters began to be published the next year. Reviews took about a month and a half to complete, compared to the three months for a regular paper, and the letters were published in three months. A copy of the paper in manuscript format was published on the *Optical Engineering* Web site as soon as it was accepted for publication.

In 2004, we began to use a browser-based system, Peer X-Press (PXP), that allowed authors to upload their manuscripts and the editors and staff to assign, review, and track papers with e-mails and Web browsers. Over the years, the time for an initial review of a regular paper has decreased from 14 weeks to 8.5 weeks. For letters, the review time has remained around 4 weeks. Technology can't improve everything—particularly busy engineers.

Along with the changes to electronic input, there were several changes in output. In 2005, member subscriptions to this journal were changed from print to electronic format. At that time, e-First publication was introduced. With e-First, papers are published whenever they are ready instead of holding them until an entire issue is assembled, as we did in the past. In 2006, standards were established for papers with multimedia files. The first papers containing multimedia were published the next year.

The introduction of e-First has dramatically reduced the time to publication after acceptance from six months to two. So, between 1998 and today, the average time from submission to publication (without revision time) for regular papers has gone from nine months down to four months and for letters from four months to three months. With the decrease in publication time for all papers, the benefits of publishing a paper as an *Optical Engineering* Letter are that it will be an Open Access paper on the SPIE Digital Library and that it will appear in our virtual letters journal, *SPIE Letters*.

When I began in 1998, I assigned almost every submission to an Associate Editor. For the first five years or so, the acceptance rate was around 60%. I began to notice that a fair number of accepted papers were “not wrong” papers. These were papers that, although they contained no errors, didn't describe any significant advances in the field. Some of the members of the Board of Editors also

began to express concern about the quality of the manuscripts they were receiving, confirming my observations.

Part of the problem was that the evaluation of manuscripts consisted of assigning scores to a number of the qualities of the paper. (This is an engineering journal, after all.) The difficulty was that no standards were provided to the reviewers to assure comparable scoring between a pair of reviewers. To improve this, the numerical scores were replaced by a set of statements that represented a range of evaluations that could be applied to a paper. This has helped to eliminate many “not wrong” papers and has reduced the acceptance rate to 40%. Slowly, over time, as the winnowing process becomes more strict and marginal papers are routinely declined, authors will either write better papers or refrain from submitting to *Optical Engineering*.

Over the past 12 years the publication of this journal has gone from the medium of paper to that of electrons and photons in every step in the production process. As SPIE has introduced computer technology to its journal publishing efforts, the time to review, publish, and deliver

a paper in *Optical Engineering* has halved, while over the same period the number of submitted papers has doubled. This serves the authors, the readers, and the entire optical engineering community.

**Donald C. O’Shea**  
Editor

**Robert E. Hopkins 1915–2009**

I mourn the passing of Bob Hopkins, considered to be the “Father of Optical Engineering.” He became an SPIE Fellow in 1978. He served on the SPIE Board of Governors from 1982 to 1984 and won the Gold Medal of the Society in 1983. He was the inventor of the Todd-AO lens used to shoot the first high-definition, wide-aspect-ratio films. An account of his contributions to our community can be found at: <http://www.rochester.edu/news/show.php?id=3403>.