

The Oceanography Society Its Importance Then and Now

BY D. JAMES BAKER AND W. STANLEY WILSON

INTRODUCTION

At the beginning, The Oceanography Society (TOS) organizers believed that the time was right for a stand-alone society serving all disciplines of oceanography (Baker, 1988). We also believed that there was a need for a scientifically based publication accessible to all oceanographers, that new arrangements for meetings should be tried, and that oceanographers needed to start making a stronger case for funding for our field. And we wanted to bring all, or as many as possible, of the working oceanographers into the society to build professional bonds.

What Were We Facing Then?

Speaking as a program manager (SW), the last of the motivations listed above was the main reason why our field needed to connect better with societal needs. I was concerned about realizing the recommendations of the Oceanography from Space program, which required significant levels of

funding. Other program managers, as well as institution heads, obviously had similarly compelling motivations. To secure that funding, one needed a community that would speak with a single, clear message, as we had learned from observing the astrophysics community and the success it realized within the National Aeronautics and Space Administration (NASA) system. Until TOS came along, we did not have an appropriate forum to help develop such a message. As one of many groups within the American Geophysical Union, or as a junior partner within the American Meteorological Society, oceanographers saw that these organizations just didn't serve that purpose. The TOS meetings, as I saw them, would serve as that forum—plenaries would provide a more holistic approach and build a sense of community, and posters would provide opportunities for networking and exchange of detailed information. *Oceanography* magazine, again as I saw it, would help develop and promulgate such messages.

What Are We Facing Today?

Funding is becoming even tighter, and competition for resources continues to increase. For example, earth sciences no longer enjoy a favored position at NASA. Although funding at the National Science Foundation (NSF) has realized some growth, the success rate for proposals continues to decline. The Office of Naval Research (ONR) and the National Oceanic and Atmospheric Administration (NOAA) are both challenged with increasing competition for resources within each agency.

As our field has matured scientifically, society has begun to face a fundamental issue, climate change—in which oceanography plays a key role—that has more profound consequences for our nation than either the Cold War or the space race, which ended shortly after TOS was established. But today there is no corresponding national commitment—as there was then—to address current national challenges. Oceanographers need more than ever to strengthen their

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sense of community, develop clear and consistent messages, and then get them out to the public, so that we can secure the resources required for oceanographers to contribute to climate change research and understanding as they could and should. And we will need to promulgate that message. But how this message is pitched is critical; it cannot be done on the basis of good science alone. We need to use our meetings, our magazine, and our awards and education programs to get the message across.

MEETINGS SPECIFICALLY FOR OCEANOGRAPHERS

At the beginning of TOS, the new concept of a plenary/poster session meeting was very well received, and gave a great send off to the first few meetings. There was a pent-up desire among oceanographers to explain their work to colleagues in other ocean disciplines, but there had been few opportunities. TOS meetings allowed that to happen. The meetings provided us with an opportunity

to develop a sense of community, as well as better understand companion subdisciplines within our field. This sense of community has continued, and there has recently been a good focus on societal issues.

Two plenary talks at the 2008 Orlando Joint Ocean Sciences meeting are timely examples. Margaret Leinen, as the Chief Scientist of *Climos*, discussed how the technique of ocean of ocean fertilization can be used to reduce carbon emissions. Not only does that effort reflect new sources of funding, but it is also addressing an issue of national importance. In another session, Jerry Schubel spoke about the need for scientists to develop clear, effective and compelling messages for the public.

But the increasing size of the meeting brings drawbacks in communications. The Orlando meeting was the largest ever—about 4,000 oceanographers; I (SW) was overwhelmed by the large number of parallel sessions that themselves were lost within an oversized

facility. I think our field needs to connect better with societal needs. The 2006 meeting on Understanding Global Sea Level Rise and its Variability—that I co-chaired in Paris with John Church, Phil Woodworth, and Thorkild Aarup (Aarup et al., 2006)—is an example of the type of meeting I prefer. It has a societal need as its focus and integrates across the earth sciences as needed. It is more than ocean science. The fundamental structure of TOS meetings does not yet facilitate that combination of information.

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AWARDS AND OCEANOGRAPHY

The awards program has grown over the years to be a significant addition to the professionalism of the field. It has provided additional professional recognition that probably never would have occurred without TOS. *Oceanography*, the magazine, is as healthy as it has ever been. It brings the community together and provides a place for multidisciplinary discussion with a healthy mix of research and education. The idea of having agencies pay for themed issues has been a lifesaver financially, and has continued to be valuable to educate readers about specific topics. Indeed, these special issues have served the agencies extremely well, providing under one cover a set of refereed articles on a given topic that explains what we do and why it is important.

MAKING THE CASE

In terms of making a stronger case for oceans programs, *Oceanography* magazine has been used to promote various programs, but we continually fight

deficits.” Interestingly enough, the same could be said today, with even stronger rationale—the impact of humans on the environment, from global warming to ocean pollution, is more visible than ever before. And the public is aware, certainly of global-warming issues, in a way that has never happened before.

Yet, we are facing declines in funding even as we are ready to continue and enhance existing observational programs and put necessary facilities in place. Making the case remains a critical issue. As a field, we need better publicity, we need better funding from both public and private sources, and we may well need new, focused institutions. Baker et al. (2008) argue that endowments and new institutions are an important part of the mix for long-term observations. Endowments in particular are critically important, and TOS, its magazine, its meetings, and its outreach programs can help make the case to this new set of donors. This is not the first time that major private funding has been called

construction at Woods Hole and the Natural History Museum in Paris; and several years ago, Professor John Woods of Imperial College London called for endowment in support of long-term oceanographic monitoring.

SOME ACKNOWLEDGEMENTS

It is also important to note the impact of some of the people not mentioned in that early article. One would be Jim Baker’s wife, Emily, who, during the lengthy early discussions about whether we should form a society, finally said, “I’m sick of hearing about this society—you should either actually start it, or stop talking about it!” And there is no question that Dave Brooks, as the first editor of the magazine, had an enormous impact with his vision of how to implement what the rest of us were talking about—his hard work and ability to translate that into actual published text really got the Society off on the right foot. The magazine, now under the able leadership of Ellen Kappel, is a unique contribution to the oceanography community.

Equal in importance to anyone is Judi Rhodes. We organizers realized early on that without professional staff help, this society would never fly. Just a year after TOS started, we interviewed Judi. Here’s her version of what transpired (from *Oceanography*, Vol. 13, No. 2, 2000, p. 6): “My background before TOS was decidedly unscientific. When I first interviewed for the position with Jim Baker and Stan Wilson at the end of 1989, I had recently arrived in Washington, DC, from Los Angeles. At one point, Stan asked me how I thought I would get along with a bunch of science geeks after all those Hollywood types I

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budget deficits. Twenty years ago (Baker, 1988) Frank Press said, “...an unprecedented number of large and expensive new scientific ventures driven by a ‘golden age’ of discovery have been laid on the table at a time of record budget

for—at the turn of the twentieth century, Ellen Scripps provided the endowment for what became the Scripps Institution of Oceanography; in the 1930s, The Rockefeller Foundation provided the base funding for programs and

was probably used to. Ten years later, I can honestly say, I would take oceanographers over Hollywood types (with the possible exception of Harrison Ford or Pierce Brosnan) any day of the week!” Judi’s organizational skills and ability to

members when they are ready to pay—after a year or so as professionals. We would get the money from a foundation to start this program, and then see if we could raise an endowment to pay for it in the long run. The cost would not be

Microsoft Virtual Earth. New alliances with the private sector are more and more important. In all of these areas, TOS is playing an important role, but could do even more.

The key challenge for TOS today is relevance. Why practice oceanography? Why is it important? The better we address these questions, the more membership will grow, the more the funding for our field will increase. We are all aware of the challenging issues facing us. We need to be well positioned—once the next Administration is in place—to argue our case. But we must demonstrate our relevance and importance in terms that ordinary men and women will understand and appreciate. That is the direction our community needs to go. ☑

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provide truly professional support with limited resources, and always to be able to find a way to get things done, were key factors in the success of TOS. Jenny Ramarui is doing a great job of keeping that tradition alive.

GROWING THE MEMBERSHIP

TOS membership needs to grow to keep the Society viable. We should all be out there recruiting new members. To that end, we have a modest proposal. The Society should provide some useful and unique services to undergraduate and graduate students, recent graduates, and those who have recently taken jobs in the profession. Why not offer TOS membership (with the magazine and discounted rates to meetings) free of charge to all of these new entrants to the field, and at the same time, provide a real and tangible service like mentoring, say a counseling session for two hours, twice per year, about job opportunities and how to succeed in oceanography? In our scenario, these new entrants would become so hooked on how valuable the Society is that they would become full

too onerous—simple calculations would suggest that \$100,000 could support such a program for five years—not an unreasonable size grant from a foundation to start something entirely new and essential to the Society. Then, we could use those five years to raise money to make the program permanent.

LOOKING AT THE FUTURE

Other articles in this issue talk about the future and what oceanographers can do to make a difference. The challenges are greater than ever before. Increased carbon dioxide in the atmosphere is leading to a more acid ocean—and we are just beginning to understand its impacts as these changes occur more rapidly than ever before. A melting Arctic is bringing new attention to the need for understanding the unique oceanography of that region. The demand for reducing carbon emissions is leading to studies of massive iron fertilization in coastal regions. On the positive side, the ocean is becoming more and more instrumented, and the data can be easily accessed through Google Earth and

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