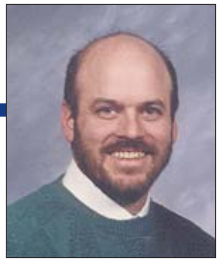
The Director's Corner



Spacey Optimists

I want to be an astronaut when I grow up!

That's what I said as a kid, and it is still true today on some level. Sure, I went through a brief fireman phase and a basketball player period, but I always returned to astronaut. Among an assortment of hazy early memories, I vividly recall a cartoon image of a kid with a telescope from a book cover called, *You Will Go to the Moon*.*

Such optimism! That's the way many of my dim recollections of the sixties are colored, though, even as I also recall that the body counts from Vietnam led the news stories each evening and the country struggled to cope with the Kennedy assassination. Perhaps everyone with a happy childhood remembers it as filled with optimism, but when I think of how the moonwalk and the promise of space dominate my impressions from that era, despite its deep turmoil, it seems to me that there is something more going on.

I still think of space in optimistic terms. When Nina Tannenwald writes about the thin tube of geosynchronous orbits (see page 6), I get giddy—not with nervousness about the potential misuses of these things, but simply with the idea that such knowledge exists and can be understood, developed, and expanded by the human mind. What is the actual shape of the geosynchronous envelope, anyway? I envision more of a thin-walled doughnut, a wedding-band shape, circling the earth, about six or seven times its width: and just how would you go about defining and computing the practical limits on its size?

Part of the fun of thinking about that kind of space problem, I think, is that it makes it easier to avoid some of the really hard space problems, such as those Dr. Tannenwald addresses. We invite your commentary on the issue of weapons in space. Despite the arresting, and perhaps, ominous image on the cover of this issue, optimism is still a dominant theme here. B. Cameron Reed's take on Chadwick's discovery of the neutron (see page 12) is brimming with it, in my view. That seemingly complicated evidences of simple truths—it's a heavy neutral particle!—can be unraveled by mere mortals makes me positively buoyant.

In fact, it is hard not to be optimistic when working here in the Sigma Pi Sigma national office because we can see daily the way that physics students express their optimism about the world around them through the activities and events they plan for their communities. Here's a case in point: the new Sigma Pi Sigma Chapter Award winners have just been named, four departments that will receive funds to enhance their traditional induction ceremony by including a larger swath of the physics community. These awards were initiated by David Zick, who was inducted into the honor

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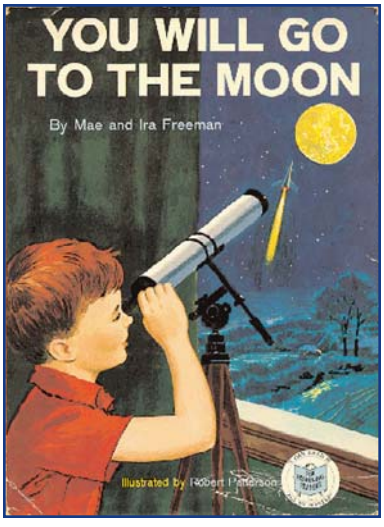

***Written in 1959 by Mae and Ira Freeman, and illustrated by Robert Patterson, this book and especially the images, captivated me again and again throughout my childhood with its bold assertions about how I would get to the moon, and what I would do and where I would live when I was there. I have no doubt that my reflexive positive feelings about space stations stem from the pictures in this book.**

American Institute of Physics

The American Institute of Physics (AIP) is a not-for-profit membership corporation chartered in New York State in 1931 for the purpose of promoting the advancement and diffusion of the knowledge of the science of physics and its applications to human welfare. In order to achieve its purpose, AIP serves physics and related fields of science and technology by serving its Member Societies, individual scientists, educators, students, research and development leaders, and the general public with programs, services, and publications—***Information That Matters***.

The Institute publishes its own scientific journals as well as those of its Member Societies; provides abstracting and indexing services; provides on-line database and e-mail services; disseminates reliable information on physics to the public; collects and analyzes statistics on the profession and on physics education; encourages and assists in the documentation and study of the history and philosophy of physics; cooperates with other organizations on educational projects at all levels; and collects and analyzes information on Federal programs and budgets.

The Institute represents approximately 110,000 scientists through its Member Societies. In addition, approximately 5,000 students in more than 600 colleges and universities are members of the Institute's Society of Physics Students, which includes the honor society Sigma Pi Sigma. Industry is represented through 50 Corporate Associates members.

Member Societies

American Physical Society
Optical Society of America
Acoustical Society of America
The Society of Rheology
American Association of Physics Teachers
American Crystallographic Association
American Astronomical Society
American Association of Physicists in Medicine
AVS—The Science & Technology Society
American Geophysical Union

Other Member Organizations

Sigma Pi Sigma, Physics Honor Society
Society of Physics Students
Corporate Associates

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society as a physics alumnus at the University of Michigan-Flint. After getting input from the Sigma Pi Sigma Development Committee, and approval from the SPS Council and the AIP budgeting process, the awards became a reality. Morgan State University in Baltimore, MD, responded by submitting a proposal to incorporate a barbecue luncheon into their induction ceremony, inviting alumni and administrators to join in the celebration of their best students. There are also plans to engage the Sigma Pi Sigma Chapter in science demonstration events at a local school. Other winners include University of Central Florida, Ramapo College of New Jersey, and Utah State University; see www.sigmapisigma.org for more information on these awards and winners.

If you are feeling a little nudge to contribute, then contact your local physics department and engage with your local chapter. Or, perhaps, if your inclinations are more digital than analog, you might consider serving as a mentor for a physics student via the web through www.mentornet.org. They need many new mentors to assist students and young science professionals in making their way through the modern maze of career decisions, and your perspectives are likely to be especially useful. In any case, your input and participation are welcome, so let us hear from you, whether about weapons in space, working with students, or telling us your "hidden physicist" story at (http://www.sigmapisigma.org/radiations/hidden_physicists.htm).

— Gary D. White

William Powell, new Sigma Pi Sigma advisor at Morgan State University, receives an award from Sacha Purnell. Sacha and Lydia Quijada, who work in the Sigma Pi Sigma national office, enjoyed participating in the induction ceremony and barbecue luncheon.