

NEWS

Earl Callen, our first Chair

As good friends of Earl Callen, the first chair of the Forum on Physics and Society, we mourn his recent passing. The Forum was born in the tumultuous 1960's and 70's. The issues of that era---the Vietnam War, the debate over the Anti-Ballistic Missile system, the energy crisis, the start of the environmental movement, the civil/human rights revolution---impelled that generation of physicists to consider their professional responsibilities. Many felt that the APS should have a division or forum in which appropriate science and society issues would be debated by informed participants before the APS membership.

Every group needs a George Washington as its founder, and Earl Callen was ours. Although his particular interest was the international human rights of scientists, the major emphases of Callen's term were building membership, developing a reputation within the APS membership for quality and objectivity, and establishing an effective working relationship with the APS Council. In its early days, the APS leadership looked upon the Forum with suspicion, fearing that the Forum would move issues too far and too fast. But, they were never embarrassed by the new group. An example of Callen's leadership is what he did when Robert March proposed an amendment to the APS Constitution. The amendment would have required the APS to "shun activities which contributed harmfully to the welfare of mankind." It was very difficult to obtain a speaker against the March amendment at an April 1972 FPS session. The first Forum Chair, Earl Callen, stepped forward and filled that role (in which he believed), which helped to defeat the March amendment.

But most of all, we cherish our personal memories of Earl. In the old days we used to meet at an Indian restaurant near the Shoreham Hotel in Washington. In those days, Leo Szilard's wife Trude used to attend to help present the Szilard Award. We can still remember the lively banter led by Earl. We miss him very much.

Expressions of sympathy in his memory can be made to the Dr. Earl Robert Callen Scholarship Fund, c/o The Physics Dept., The American University, 4400 Massachusetts NW, Washington, DC 20016.

David Hafemeister, 1985-86 Chair

Martin Perl, 1973-74 Chair

Good News for NSF; According to the AIP's FYI #128, authored by Richard M. Jones, there is very good news for the National Science Foundation. In mid-November 2002, Congress passed the bill H.R. 4664 which will lead to a doubling of funding for the NSF by the year 2007. President Bush is expected to sign the bill.

The idea of doubling funding for NSF has been in the works for at least five years. According to Jones' article, some of the representatives who played key roles during these years in bringing this vision to reality included Senator Phil Gramm (TX), Senator Bill Frist (TN), Representative Sherwood Boehlert (NY), Senator Christopher Bond (MO), Senator Barbara

Mikulski (MD), Representative Eddie Bernice Johnson (TX), Representative Nick Smith (MI), and Senator Ted Kennedy (MA).

This event occurs in the context of the Bush Administration's original proposal to grow the NIH budget at a much higher rate than that of the NSF. In response, the American Physical Society led organized letter writing campaigns to both the Congress and the White House expressing the need for a more balanced approach to science funding. Senator Mikulski is quoted as having once said, "I remain fully committed to the doubling of the budget for NSF over the next five years, but without the support of the administration, the authorizing committees, and the Budget Committees, the appropriators cannot do it alone." Perhaps we can now add "support of APS scientists" to list of ingredients that were needed for success in this venture.

Bad News for Physics - Research Misconduct: In the Search and Discovery section of the November 2002 issue of Physics Today, Barbara Goss Levi gives many of the details surrounding a case of scientific misconduct which, earlier this year, shook Bell Labs at Lucent Technologies. The case involved some spectacular claims regarding the coaxing of organic materials into acting as superconductors, lasers, single-molecule transistors, and more. In her article, Levi even enumerates prior issues of Physics Today(5/00, 9/00, 1/01, 10/01) in which these spectacular claims were described and discussed.

Whistles starting blowing when physicists inside and outside of Bell Labs noticed that several figures, published in different papers, were suspiciously similar to each other. Levi showed an example of substitution of data, in which one experimental curve on a plot was numerically identical to another curve over a large domain except for a scaling factor.

This case follows on the heels of another sensational case of misconduct, related to claims of heavy element creation by a group at Lawrence Berkeley Laboratories. In both cases, the charge of deliberate fraud was made against a single investigator within a group. And both cases have raised the issue of collective responsibility within a group of authors for the content of publications. As Levi quoted a committee established to investigate the Bell Labs case, there are "no widely accepted standards of behavior [regarding co-authors' responsibilities]", and the committee called on the community to establish some.

Bad News About Science Students - they are missing: After a decade of decreasing enrollments by American students in undergraduate and graduate programs in science and engineering (S&E), a summit was organized in November 2002 by over 40 scientific and engineering societies, think tanks, and governmental agencies to discuss the health and training of the S&E workforce in the United States. Many of those who attended did so out of concern for the continuing contraction of American citizens' enrollments in S&E training programs and for the continued dependence of the American economy on foreign S&E workers. The meeting was reported by Audrey T. Leath in FYI #135 of the American Institute of Physics. This article is derived from Ms. Leath's FYI.

Almost two decades after "A Nation at Risk" was published, more than a decade after former President Bush declared that students in American public schools would be #1 in the world in math and science achievement by the year 2000, and several years after America's

disappointing showing in TIMS (Third International Math & Science Test) , the summit last month seemed to agree that K-12 science, technology, engineering, and math (STEM) education must be improved. In addition the summit, sponsored by the National Academies' Government-University-Industry Research Roundtable, focused its attention on conditions within S&E careers. "Those who are concerned about whether the production of U.S. scientists and engineers is sufficient for national needs must pay serious attention to whether careers in science and engineering are attractive relative to other career opportunities available to U.S. students." was the warning from one of the participants at the summit.

Representatives from federal agencies described difficulties in finding qualified S&E workers, and one participant estimated that more than half of federal S&E workers might retire during the next decade, thus exacerbating the shortage of qualified manpower.

Other subjects discussed at the summit included the need for more data related to S&E labor in the U.S., the need for more precise and consistent definitions of S&E shortages, improvement of training for STEM teachers, making S&E undergraduate programs more attractive, and increasing the participation of women and minorities in S&E careers.

Readers in learning more about the summit can go to
http://www7.nationalacademies.org/guirr/PanOrganizational_Summit.html

Bad News at Los Alamos: As part of a series of events that might augur the end of University of California's management of the Los Alamos National Laboratory, Keay Davidson reported in the January 3, 2003 issue of the San Francisco Chronicle that "The future of the University of California's management of the nation's first nuclear weapons lab may be in jeopardy after the resignation of its top administrator amid scandal." Davidson was referring to the resignation of John Browne after a frank discussion between Browne and UC President Richard Atkinson during the latter part of December 2002.

Browne's resignation, on December 23, 2002, followed several months of controversy regarding, among other things, the loss of over 250 laboratory computers since 1999 as well as other lab property valued at a total of about \$2.7 million. The losses were reported by Steven Doran and Glenn Walp, two investigators hired by Los Alamos and subsequently fired after they accused the lab of a cover-up surrounding the equipment losses. Secretary of Energy Spencer Abraham wrote a letter on December 24, 2002 to Atkinson in which the firings were described as part of "systemic management failure" at Los Alamos. The letter also warned that "these problems have called into question the University of California's ability to run the Los National Laboratory" and hinted that Abraham might try to end UC's role in the lab management prior to the expiration in 2006 of UC's contract