

# COMMENTARY

## Call for Nominations

The Forum's election schedule does not coincide with the APS election schedule. Our present schedule denies Forum representation on the APS Council for the first half-year of our Councilor's term. For this reason, the election of the 2004 officers will take place 6 months earlier, with the printed ballot appearing in the July issue of *Physics and Society*. The next ballot will decide the following positions: Vice-Chair, Secretary/Treasurer, Forum Councilor, and Executive Board (2). Please send nominations by May 1, 2003 to David Hafemeister at [dhafemei@calpoly.edu](mailto:dhafemei@calpoly.edu), Physics Department, California Polytechnic State University, San Luis Obispo, CA 93407, (805) 544-5096.

## Remarks from the Chair

*Andy Sessler*

Dear Fellow FPS Members,

There are two purposes of the Forum on Physics and Society. The first is to develop sessions at the APS Meetings that deal with those issues where physics and society intersect. The topics may be those where society has an impact on physics (funding laws, visa matters, etc.) and those where physics has -- or should have -- an impact on society (missile defense, economic impact of research, educational outreach). The second purpose is to produce a Newsletter that brings the very matters mentioned to the attention of our members, many of whom desire a deeper treatment of these matters, or can't attend our sessions. In addition our Newsletter has other features such as book reviews and articles on matters not covered in our sessions.

In order to accomplish all this we have a rather elaborate structure of elected vice chair (later to become the chair-elect, chair and past-chair), secretary-treasurer, elected representative to the APS standing committee of council, POPA, representative to the APS Council and members of our Executive Committee. In addition, we have an appointed Editor of our Newsletter, and many appointed volunteers serving on the Editorial Board, a Fellowship Committee, a Nominating Committee, a Program Committee, an Awards Committees, up-dating our web site, etc. All of this is set forth in our by-laws that are posted on our web site. Furthermore, in order to facilitate ever-new people becoming our officers and volunteers we have made a Handbook describing duties and needs. This also is posted on our web site.

But, as I said earlier, the output products are our Sessions and our Newsletter. Both are of excellent quality and I will refrain, here, from discussing the very many subjects of vital importance that are covered. This year we have been involved in 12 different sessions (primarily because we have made connections to many other units and have developed -- to mutual benefit -- joint sessions). Most (8) were at the April Meeting, the remainder at the March Meeting. We have not yet penetrated the other meetings such as the Plasma Meeting or the Fluid Dynamics Meeting. I would like to see that happen. I believe we can do that by using our Program

Committee and, most importantly, assuring that it has wide representation. (In the last few years, that Committee has been let languish with all of its tasks falling to the chair-elect.)

The Newsletter, after more discussion and machination than you can believe, is now easily reached from the APS Home Page. Hopefully, even those not members of the FPS are now finding the Newsletter and, more importantly, finding it interesting. Maybe they will even join our Forum!

Keeping the Forum "going" is a big task. Besides our formal meeting once a year (at the April Meeting) we have conference telephone calls through out the year. Many of the members of the Executive Committee work very hard and, as is usually the case, their efforts are unappreciated by most of those who benefit. I want to be amongst the first who gives them a vote of thanks. I suspect that many others would join me.

We do need more volunteers: Everything from being willing to "run" for various offices to being members of the editorial board, the fellowship, sessions, awards and nominating committees. The simplest way is to send me an e-mail saying what you would be willing to do. Sooner, or later (and it may be "sooner") we shall use you!

*Andy Sessler*  
*AMSessler@LBL.GOV*

# Nuclear Policing the World

*Nina Byers*

The following may be of interest to physicists as we face the problem of proliferation of nuclear weapons and the threat of nuclear war. Our predecessors more than fifty years ago foresaw the predicament we find ourselves in today. The Franck Report which was not declassified until many years after the end of WWII attests to the prescience of such people as James Franck and Leo Szilard. They along with Niels Bohr and Albert Einstein firmly believed in an internationalist approach to the problem of controlling nuclear weapons proliferation. Others disagreed. Arthur Compton, for one, believed in a nationalist approach. The following is a brief account of this difference and how it played itself out in 1945. It is extracted from an article published in the November 2002 CERN Courier (<http://xxx.lanl.gov/html/physics/0210058>). References to the historical documents can be found there.

In 1943 fear that the German war machine might use atomic bombs was abating and among physicists another fear was taking its place - that of a postwar nuclear arms race with worldwide proliferation of nuclear weapons. Manhattan Project scientists and engineers began to discuss uses of nuclear energy in the postwar world. Niels Bohr, Leo Szilard, James A. Franck and others launched a concerted effort to lay groundwork for international control of the technology. They tried to persuade policy makers not to base their decisions on short range military expediency alone but also take into account long range consequences. They foresaw a postwar nuclear arms race and the proliferation of such weapons among many nations, large and small. They also anticipated the danger of non-national entities acquiring such weapons. The main message of these people was that worldwide international agreements would be needed to provide for inspection and control of nuclear weapons technology. It was given in meetings and documents whose contents were then highly classified but are now in the public domain.<sup>1</sup>

The political philosophy that propelled Bohr, Franck, Szilard and their colleagues to suggest such an internationalist approach to the problem was not universal among physicists in the Manhattan Project. Indeed Arthur Compton, Director of the Metallurgical Laboratory, had a nationalist viewpoint which he expressed, for example, in his book *Atomic Quest* (Oxford University Press 1956). He wrote "In my mind General Groves stands out as a classic example of the patriot. I asked him once whether he would place the welfare of the United States above the welfare of mankind. 'If you put it that way,' the General replied 'there is only one answer. You must put the welfare of man first. But show me if you can,' he added, 'an agency through which it is possible to do more for the service of man than can be done through the United States.' "

In 1946 Compton suggested how to keep the peace in an essay entitled the Moral Meaning of the Atomic Bomb published in a collection *Christianity Takes a Stand* (reprinted in *The Cosmos of Arthur Holly Compton*, M. Johnston ed., Alfred A. Knopf New York 1967). He wrote

---

<sup>1</sup> References and further details can be found in N. Byers, *Physicists and the Decision to use the Bomb*, CERN Courier, November 2002. This paper is also available at <http://xxx.lanl.gov:80/html/physics/0210058>.

"It is now possible to equip a world police with weapons by which war can be prevented and peace assured. An adequate air force equipped with atomic bombs, well dispersed over the earth, should suffice. ...we must work quickly. Our monopoly of atomic bombs and control of the world's peace is short-lived. It is our duty to do our utmost to effect the establishment of an adequate world police ... This is the obligation that goes with the power God has seen fit to give us."

This is in stark contrast with the views of Niels Bohr. In 1944 Bohr met with President Roosevelt and Prime Minister Churchill, separately, urging that they consider open sharing with all nations the nuclear technology being developed in the Manhattan Project to lay groundwork for international control of atomic energy. His suggestion was officially rejected by the two leaders in an Aide-memoire signed September 1944 at their Hyde Park meeting. Einstein learned of this failed effort of Bohr and suggested to him that they could take steps to inform leading scientists whom they knew in key countries. Bohr felt they should abide by wartime security restrictions and not do this.

After Roosevelt died in the spring of 1945, a committee, the Interim Committee, was formed to advise the President and Congress on the use of nuclear energy. Scientists and engineers in the Metallurgical Lab submitted a report to that Committee which now is famous as the Franck Report. It was transmitted by Lab Director Arthur Compton to Secretary of War Stimson, chair of the Committee. In his letter of transmittal, dated June 12, Compton expressed criticism of the Report and said he would give it to the Scientists Panel to consider. The Panel consisted, in addition to himself, of J. R. Oppenheimer, E. O Lawrence, and E. Fermi. The Panel's report was submitted to the Committee four days later. It disagreed with the recommendations of the Franck Report (see below) and instead agreed with the Interim Committee's advice "that the bomb should be used against Japan as soon as possible." The Committee had unanimously agreed on June 1 to offer this advice at the recommendation of James F. Byrnes, President Truman's designated Secretary of State. Byrnes was a member of the Committee as was Karl Compton, President of MIT and Arthur's brother. Historians believe Truman met with Byrnes later that day and made this decision. Clearly the census the Committee had reached June 1 was not known to the authors of the Franck Report. Their Report is dated June 11.

The Franck Report found the "use of nuclear bombs for an early, unannounced attack on Japan inadvisable. If the United States would be the first to release this new means of indiscriminate destruction upon mankind, she would prejudice the possibility of reaching an international agreement on the future control of such weapons. Much more favorable conditions for the eventual achievement of such an agreement could be created if nuclear bombs were first revealed to the world by a demonstration in an appropriately selected uninhabited area. ..."

This historic record shows the diversity of physicists' political philosophies. It no doubt still exists. The political spectrum to be found in our community is, I believe, as wide as in the communities in which we live. There is no reason to believe that on political issues we think alike. As citizens of a political democracy we have the right and obligation to express our opinions, and in these perilous times I believe we should be doing so.

*Nina Byers  
Dept. of Physics and Astronomy  
UCLA, Los Angeles, CA 90095*

(References and further details can be found in N. Byers, *Physicists and the Decision to use the Bomb*, CERN Courier, November 2002. This paper is also available at <http://xxx.lanl.gov:80/html/physics/0210058>)