

NEWSLETTER

of the FORUM on PHYSICS and SOCIETY

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The APS and Public Affairs

This newsletter focuses on the question of what is the appropriate role of the American Physical Society in public affairs. The essays printed here are based on statements submitted to a special meeting of the Executive and Budget Committees of the APS Council in Salt Lake City, June 12-14, 1974.

The meeting reviewed present programs in the public policy area such as the APS Congressional Fellowships and considered proposals for new mechanisms submitted by the Council's Committee on Committees (chaired by Vera Kistiakowsky of MIT) and the Ad Hoc Committee on a Washington Representative (chaired by Earl Callen of American University). Among these proposals were the institution of a new Committee on Public Affairs and a Washington Representative of the APS. The recommendations of the meeting will be published in the August APS Bulletin and presented to the APS Council at its October meeting in New York.

This newsletter contains excerpts of the statements submitted to the meeting by Joel Primack (page 5), Forum Chairman Barry M. Casper (page 1) and Charles Schwartz (page 7) along with a reply to these statements by President W.K.H. Panofsky (page 9). Attempts to obtain permission to reprint other statements submitted to the meeting were unsuccessful.

Forum members wishing to contribute their views to the Council discussion in October should submit comments to APS Executive Secretary W.W. Havens, Jr., APS, 335 E. 45th St., New York, 10017. The Forum is planning a session on these questions at the annual meeting in Anaheim, California in January, 1975. The Forum Newsletter would also welcome additional statements. Please submit them to Martin Perl, Bin 61, SLAC, Stanford, California, 94305.

Toward a More Democratic Relation Between Scientists and Government

Barry M. Casper
Carleton College

This is a time of change in the relation of scientists to government. Old institutions, such as PSAC and OST, are gone; new institutions, such as the Office of Technology Assessment, are being created. It is certainly an appropriate time to reassess the role that the APS and other scientific professional societies can play in the public policy process. Before discussing specific proposals, however, it will be useful to have some general criteria for evaluating these proposals.

In the past, scientists' input to government has involved only a relatively few individuals; it has been directed almost exclusively at the Executive Branch of the federal government; and it has been characterized by such secrecy that, on many significant issues, the analyses and recommendations of the scientist-advisors have been inaccessible to the public and even to the Congress. The problem with such a system is that it is fundamentally undemocratic. It does not provide for the informed public debate of key issues of public policy that is the cornerstone of democracy.

I would make an analogy with the way we do physics: we would not dream of delegating to a single individual or small group of scientists the exclusive respon-
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NOMINATIONS SOLICITED

Any member who would like to serve as an officer of the Forum or who wishes to suggest another member as a candidate for election should contact Joel Primack, Chairman, Forum Nominating Committee, Physics Dept., Univ. of Calif., Santa Cruz, 95064, prior to November 1, 1974.

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sibility for examining a scientific problem and determining the correct scientific viewpoint. Consensus does arise in physics, but only after the open, critical scrutiny of ideas, and, frequently, after extended debate in which all concerned physicists can participate. By the same token, physicists' input to public policy should be characterized by direct confrontation of diverse viewpoints in which all concerned -- scientists, policy-makers, and the public -- can participate. If we are to protect our democracy from the tyranny of the "expert" we must establish institutions that promote effective public confrontation of differing views on public policy questions.

In 1967, Ralph Lapp wrote a book about the relation of scientists to government, which he called The New Priesthood. The central theme of this book, expressed in the following passage, is relevant to our considerations:

"Even if no formal secrecy is invoked by the government an issue might as well be classified 'secret' if the people in a democracy are incapable of carrying on an intelligent discussion of it. Here both scientists and laymen bear a pressing responsibility to establish a dialogue and to maintain it. If this is not done we face the real danger of a layered society in which a scientist elite fraction floats on top and dominates our policy-making. The danger is that a new priesthood of scientists may usurp the traditional roles of democratic decision-making." (emphasis added)

In my judgment the principal goal of the APS in public policy should be to foster such a dialogue. We must effectively involve the physics community in an effort to insure that citizens and decision-makers in our society have sufficient information in an intelligible form to understand the issues concerning how science and technology are to be used.

This will mean that new mechanisms relating scientists to public policy, including those we establish in the APS, will

have to differ significantly from the previous mechanisms. I would suggest three characteristics, which the old system did not possess, as desirable goals in considering new institutions or mechanisms.

I. Open: These institutions or mechanisms should be "open" in two senses. First, the information and analyses they generate should be open to the public and to the Congress. The APS could see to it that the best-informed members of the physics community on any significant public policy issue are provided with channels for making their views widely known and that these individuals are urged by their colleagues in the physics profession to come forward and do so. If confidentiality is necessary for in-house science advisors, let us make sure that only a small fraction of physicists involved in public policy are muzzled in this way.

Second, the institutions should be more open in the sense of more effectively tapping the resources of the physics community. We need to provide access to any physicists who can demonstrate an ability to contribute. Further, we need to provide reward and professional recognition for those who do contribute so as to encourage more physicists to do so.

II. Multifaceted: A focus of scientific input to public policy on only one branch of government is not healthy in the long run. Our democracy will be strengthened by improving the technical competence of the Congress, state and local governments, and citizens' groups. For this reason, we should think of the institutions we are creating in the APS as long-term propositions, not as short-term stop-gap measures to be used until our more illustrious colleagues can once again get the ear of a more receptive president.

III. Interactive: Recent examples of controversial public policy issues with significant technical components such as the ABM, the SST, and reactor safety demonstrate that public airing of positions by advocates is not by itself sufficient to insure an illuminating debate. A further condition is required. The adversaries in the process

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must be made to speak to their opponents' arguments. Otherwise it may be difficult for the public and decision-makers to understand just what are the key questions and where are the essential disagreements.

For example, in one sense the ABM controversy in 1969 was a classic adversary process. Both opponents and proponents of SAFEGUARD spoke publicly and testified at length before the Congress, creating volumes of information. In another sense, it was a failure. Many Congressmen threw up their hands, saying "there are experts on both sides; how should I know whom to believe." As one congressional staffer put it recently, the lesson of the ABM debate is that "the experts cancelled each other."

This remark, if valid, would seem to imply that ultimately scientists play not a substantial, but rather a symbolic function in public policy development. In her perceptive Ph.D. thesis on the ABM debate, Anne H. Cahn described this as the "figleaf function," meaning that the experts are used to legitimize a policy position, covering the real, political and bureaucratic, motives behind the policy. Indeed, this is how scientists have been used in the past -- and with potent effect when only one group of scientists, for example those representing the DoD, were heard.

But the experts don't have to cancel. The ABM and other recent controversies can be seen as a temporary stage in an evolutionary process in the relation of scientists to public policy. Prior to 1969, the myth that science can provide objective answers to public policy questions had currency in the Congress and in the public mind and insider scientists, who benefitted from this myth, did little to discourage it. With this history, it is not surprising that many Congressmen found it difficult to cope with a situation in which the "experts" espoused seemingly contradictory points of view.

Now that this myth is debunked, it is important that we move on to the next stage in the evolutionary process. This will involve creating institutions which foster an adversary process in which scientists with conflicting views on public policy

issues are made to comment directly on each other's statements. In this way it can become clear where they agree, where they disagree, and where they are talking past one another; in the areas in which there are disagreements it can be determined whether these disagreements hinge on technical matters or on value judgments.

In the reams of testimony in the ABM debate there is one example of this interactive process. It provides a prototype of what is possible. In April 1970, Prof. Panofsky testified in opposition to SAFEGUARD before a subcommittee of the Senate Foreign Relations Committee. Staff members of the Senate Armed Service Committee studied this testimony and selected 21 key assertions Panofsky had made. They submitted these assertions to the DoD and asked for comments on each of them. Panofsky was then asked to respond to the DoD comments. This material was published as part of the Senate Armed Services Committee hearings on the ABM. In this way a genuine dialogue on many of the key issues concerning SAFEGUARD was effected. This is a most useful document. It is concise; it is informative; it is couched in language the informed layman can understand; and it provides a genuine joining of the issues.

Decisions concerning the application of science and technology are certain to be among the most critical that our society will have to face in the future. Scientists have knowledge and expertise that must be effectively used in making these decisions. It is therefore imperative that we devise mechanisms to insure that this expertise doesn't "cancel" on some superficial level. The principal goal of these mechanisms, in my view, should be an interactive process, such as that described above.

An Appropriate Role for the APS

The APS can contribute to this goal. For example, it can establish issue committees on significant public policy questions. The task of an issue committee would be to draw up a list of the key questions concerning the issue and to see to it that articulate advocates representing diverse views respond publicly to these questions. This is not an easy task. It will require

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considerable wisdom to devise the interrogatories. It will require considerable effort to insure that useful responses are obtained. I see these issue committees and the diverse responses they generate as perhaps the most useful new initiative the APS might make in the public policy area.

As a general rule, I think the APS should respond to requests from government for advice with the kind of diverse, interactive response I have described. In addition to being the most useful thing we can do from the point of view of the decision-maker, and a step toward a democratic input from scientists to government, it has an important advantage to the APS. If the Society tries instead to generate a single position in a response, it will alienate a substantial fraction of the membership who hold differing views, unless the response is limited to public policy questions

on which there is essential unanimity among APS members. But this would mean that the only questions on which the Society would comment are those like increased funding for basic research, conversion to the metric system, or, perhaps opposition to repression of Soviet physicists, on which there is a consensus in the membership.

Thus, if the mode of APS response to public policy questions is restricted to a position ratified by the APS membership, the APS Council, or the Council's Executive Committee, the Society would be unable to respond on the most significant and controversial questions. But this is precisely where the resources of the physics community are most needed. A way to avoid this, and to involve physicists effectively in the development of policy on important issues, is a diverse response in which the Society adopts no official position.

Panofsky Guidelines for APS Advice to Congress

The following guidelines, drawn up by APS president W.K.H. Panofsky, were adopted by the APS Council at its February meeting in Chicago:

1. The APS will publicize its willingness to comment on or provide testimony with respect to those pieces of legislation where the character of the APS as a professional society of physicists merits that special weight be given to such comments or testimony.

2. Upon receipt of a request to comment or testify on pending legislation, the executive secretary will notify members of Council, chairmen of Divisions and the Forum, and the chairman of the Members Advisory Committee. He will also list such requests in the Bulletin.

3. The president of the APS will examine the legislative background of the measure in question, using the resources of the office of executive secretary, his assistant, or other available information. All correspondence regarding the legislation from the membership shall be forwarded to the president.

4. The president will draft his comments or testimony so as to meet the time table required. When the time table per-

mits, he will circulate his comments or testimony to members of the Executive Committee for endorsement or suggestions for change, submit his comment or testimony to the members of the Executive Committee at a scheduled meeting for discussion and endorsement, and submit his comment or testimony to members of the Council at a scheduled meeting for discussion and endorsement.

The comment or testimony finally delivered by the president or his designate shall clearly state the level of endorsement received within the Society.

5. Any comment or testimony delivered by the president shall be a public document. It shall be available to the membership through the Congressional Record. The executive secretary may also publicize the report by publishing either an abstract or the full text of the report in the APS Bulletin, citing the circumstances of its delivery to the government. The text of the report will also be submitted to Physics Today for publication.

Why the APS Should Not
Take Stands on Public Issues

Joel R. Primack
Univ. Calif., Santa Cruz

In the past year, the president of the American Physical Society has been asked by members of the United States Senate to comment on questions of public policy -- for example, the organization of federal energy research and development. In addition, the APS president is a member of the Council of Scientific Society Presidents, which has met with H. Guyford Stever and Gerald Ford to advise them on matters of national policy for science and technology.

The desire to advise and assist APS presidents so that they may better be able to carry out their new responsibilities in matters of national policy has been one of the motivations of the ad hoc APS Committee on Committees in proposing the creation of a new APS Committee on Physics and Public Policy. (The charges to this committee would also include liaison with and supervision of the APS Congressional Fellowship program, the APS studies of technical issues relevant to public policy, and the Washington Representative -- if such a position is created. Indeed, the Washington Representative might very well be the staff officer for the Committee on Physics and Public Policy.)

As a member of the Committee on Committees, I have been an advocate of the establishment of a Committee on Physics and Public Policy. But I feel strongly that this committee must not become the APS's PSAC! (PSAC, the President's Science Advisory Committee, was abolished by President Nixon in early 1973.) In my opinion, neither this committee, nor the APS president (except insofar as he speaks as an individual, and not in his official capacity), nor any other organ of the American Physical Society, should make pronouncements on public issues.

I shall in the next section list four reasons why I think the APS should not take stands on public issues. Afterward, I shall explain what I consider to be more appropriate responses to requests

for public policy assistance directed to the APS by public officials and by the APS Congressional Fellows.

I believe that the American Physical Society does potentially have important roles to play in public service and public affairs, but these roles are in the areas of (1) clarifying scientific questions of social relevance, and (2) facilitating the participation of individual physicists in public policy formation.

Reasons why the APS should not take stands on public issues:

1. Public issues rarely, if ever, hinge primarily on scientific questions: usually value judgments or other political questions are involved. Physicists can speak as experts only on matters of science; their purely political judgments are no more authoritative than other citizens'. It is entirely appropriate that scientists enter political debates on technological issues either as individuals or through organizations like the Federation of American Scientists. It is not appropriate that scientists' professional societies enter such debates.

2. It is appropriate for organizations like the American Physical Society to organize studies on technical issues relevant to public policy, like the nuclear reactor safety study. (The expected outcome of this study is a report identifying areas of technical certainty and uncertainty, and areas where research is needed, on reactor safety. It is not anticipated that the report will make explicit recommendations regarding public policy issues -- for example, whether installation of light water reactors should be either suspended or accelerated.) It is important that technical studies by scientific organizations be received and judged on the basis of their technical excellence, and not as political pronouncements. If the American Physical Society became identified with a particular political position, its technical judgment would inevitably be somewhat compromised.

I appreciate that government officials rarely are interested in purely technical

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judgments: they want policy advice as well from their science advisors. It is precisely for this reason that scientific societies can never usurp the legitimate role of government science advisors. On the other hand, the technical basis for policy advice ought to be a matter for public discussion within the technical community. It is in facilitating and occasionally organizing such discussions that scientific societies can help bring increased rationality to decisions on public issues.

3. Scientific societies are not well organized for the function of reaching consenses on political issues. Their officers are generally chosen on the basis of their scientific reputations rather than their political views. There is usually no provision for political referenda -- in the case of the Physical Society, such referenda were explicitly rejected by a large majority of the membership in the defeat of the "Schwartz amendment." Moreover, scientific societies are not politically homogeneous. Consequently, political consenses will exist only on "motherhood" or "bread-and-butter" issues, like the need for continued public support of basic research. If the scientific society were nevertheless to try to take a public stand on an issue where a consensus of the membership does not exist, then important segments of the society may become angry and alienated.

4. Political pronouncements by professional societies are in any case not likely to receive much attention from governmental bodies or from the press. Scientists are a small minority with only moderate political influence. When professional societies conduct scientifically sound studies of technical issues relevant to public policy, however, such studies are likely to be quite influential.

(For a more comprehensive discussion of public service and public policy activities the professional societies can undertake, short of taking stands on public issues, see Martin Perl, Joel Primack, and Frank von Hippel, "Public Interest Science and Professional Societies," Physics Today, June 1974.)

Appropriate responses to requests for public policy assistance directed to the APS by public officials and by the APS Congressional Fellows

To some requests, the most appropriate response would be to respectfully decline to comment. While some physicists will doubtless be very well qualified to comment as individuals on many issues of public policy -- such as government reorganization, strategic weapons policy, energy policy, etc. -- the Physical Society, as a corporate entity, is not.

To requests for assistance on controversial issues, the Physical Society can respond in a variety of ways. It can attempt to identify the technical issues relevant to the controversy, and organize conferences or sponsor studies to help clarify or resolve these issues. It can propose qualified spokesmen for the various viewpoints as participants in Congressional hearings; or, perhaps most usefully, it can prepare a list of technical questions which all scientific participants in such a hearing should be asked to address. All of these activities could be performed by the Committee on Physics and Public Policy in consultation with other organizations within the Physical Society, including the Forum and the Divisions. The APS Congressional Fellows have identified several issues which could be usefully attacked in these ways, and they have expressed a strong desire for just such assistance as the Committee on Physics and Public Policy could provide.

It should perhaps be emphasized that the Physical Society should not merely respond to external requests for assistance on public policy issues. The scientific community should attempt to resolve technical issues which will be relevant to public policy before crises arise. Such issues have in the past been recognized and publicized primarily by unusually perceptive individual scientists -- and that will doubtless continue to be the case. But the Forum on Physics and Society and the Committee on Physics and Public Policy could certainly help to facilitate such work.

APS Public Policy Procedures:
Principles and Problems

Charles Schwartz
Univ. Calif., Berkeley

I favor the idea of APS contributing its services to assist the people at large; and this discussion will be concerned with the question of procedures for this activity. The objective of carefully thought out procedures is to maximize the protection of both the internal integrity of the APS and the democratic principles of the external society we seek to serve.

A. General Principles: All APS public service activities must be fully open:

1. All reports, studies, letters of advice, etc., submitted to any government agent under the auspices of the APS must be made known and available to all APS members. This would include, presently, work of APS Congressional fellows, energy study group, Presidential letters of advice to executive or legislative officers. Title, date, author(s), recipient(s) and a synopsis of all such public service products shall be speedily published in the Bulletin, with full texts available at reasonable cost. This means there can be no APS involvement in secret matters; it means the client may not choose to hide a report requested of an APS person/group. Such secret/private scientific advice may be obtained by government persons elsewhere, but it is inconsistent with the APS role as a public servant.

2. APS groups working in the public interest (study committees, selection committees, legislative fellows, etc.) must be broadly representative to reflect the full spectrum of views within the APS. Democratic process requires a fair opportunity for participation by minority viewpoints. In many public-interest-science issues there is real controversy -- both on strictly technical matters and on science-policy matters -- and this controversy should not be hidden by seeking only a middle-of-the-road consensus.

3. Rigorous guidelines are required to handle questions of possible conflicts-of-interest. Nothing could more easily degrade the integrity and value of APS public service activities as the promotion of special-interest views under the guise of APS sponsorship. The basic step here is the establishment of a personal disclosure routine. It is easy to say that conflicts of interest are to be avoided and that we should trust the personal integrity of the individuals involved. There is, however, no better way to create and maintain public confidence than to institute a routine of public disclosure of all possible sources of conflict. This issue has been strongly forced into the public consciousness as the result of Watergate and there is no reason why any institution, claiming to work "in the public interest", should avoid this healthy exercise. The basic idea is that disclosure should be routine, periodic, extensive, and available for public inspection. For APS public service work one might want to qualify the disclosure rule by saying that it covered only those items that have, or may be perceived to have, some connection with physics or the professional work of the physicist; but the guide should be: when in doubt, disclose it. Such matters as past (and future offers of) employment, consultancies, or voluntary affiliations involving science and science-policy activity should also be covered. Such disclosure statements should be included with the ballot in any APS election of Officers, Councilors, or Public Policy Committee members; they should be published annually in the Bulletin for all incumbents in such APS offices, and also for any appointed APS officials; they should accompany the report of any individual or group working under APS auspices on a public service project.

B. Some Problems: Recent examples that provide an opportunity for constructive criticism of present APS procedures in public service activities:

1. Selection of individuals and committees to do APS public service work currently

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proceeds by the "old buddy" system; the President appoints people to the operative committees, perhaps with the advice of some of the Council, out of a select pool of personal associates. The general membership of the APS is not consulted in this selection and may not even be well informed about the choice after it has happened.

2. President Panofsky's plan, adopted by the APS Council (Physics Today, April '74), for giving advice to Congress is, in my opinion, unwise in the extreme. It permits one person to speak with the authority of the entire APS on matters that may have enormous political implications. Panofsky is a man of great experience and he carries the respect and admiration of certainly a great majority of APS members, but this does not entitle him to speak for us all. (I have read the two letters he submitted to U.S. Senators - dated March 14 and 15 of this year - under this new authorization. The subject matter is science policy and government organization for energy and

other socially oriented R&D. I can agree with much of what Panofsky says but I strongly disagree with some parts; I expect other APS members may similarly be divided. Yet the letters to the Senators carry no hint of such controversies as might exist; they appear to speak for the APS as a unit; there is not even a disclaimer about these letters being the opinion of one person and there is no acknowledgement of that one person's prior and current commitments: the laboratory of which he is the director.)

One can easily recognize the argument in favor of Panofsky's plan: that sometimes a speedy input to the government may be needed to have any effect at all, and consultation with a broad cross section of people can take much time. But one should also recognize that the requirement for maximum efficiency in government is usually at odds with the requirement for democracy. (Efficiency is usually the prime virtue of political dictatorships.)

Excerpts from a three-page letter from APS President W.K.H. Panofsky to Senator Abraham Ribicoff, March 14, 1974:

Dear Senator Ribicoff:

As President of the American Physical Society, I should like to respond to requests for comment by the Society on the proposal to establish an Energy Research and Development Administration (ERDA) as an independent agency serving an Administrator appointed by the President with the advice and consent of the Senate... Many of the factors involved in these matters are of an organizational and political nature; on these the advice by the American Physical Society is not too useful. There are scientific issues involved, however, and it is to these that the Society wishes to address its comments. This response has been prepared with the endorsement of the Executive Committee of the Council of the American Physical Society.

...One should recognize that the establishment of an R&D organization separate from those agencies of government charged with exploiting the results of research and development involves certain problems of coordination... I believe the Congress should give particular attention as to how such coordination should be carried out in the most effective manner. My view is that a strong and continuing Science and Techno-

logical Advisory system at the level of the Executive Office of the President would be most effective in contributing to this function. Decisions which are as fundamental to the over-all health of the nation as those relating to the management of present and future energy resources should be made with the fullest possible understanding of all the scientific and technical aspects involved; therefore counsel provided by each agency of government and filtered through the policy objectives of that agency must be evaluated and balanced in all its scientific and technical, as well as economic aspects, by a body directly responsible to the President.

To summarize: I would like to endorse strongly the establishment of ERDA as a governmental agency dedicated to basic research as well as R&D on long-range and short-range energy problems. It is my conviction that the problem areas identified above can and should be overcome and that the resultant reorganization will be of net benefit to the nation.

I hope that you will find these recommendations useful in considering this important legislation.

Sincerely yours,
Wolfgang K.H. Panofsky
President

President Panofsky Responds

W.K.H. Panofsky
Stanford Linear Accelerator Center

(Note: Drs. Casper, Primack and Schwartz, among many others, submitted written statements to the meeting of the APS Executive and Budget Committees in Salt Lake City, held June 12-14, 1974. Abbreviated versions of these submittals are appearing in this Newsletter and Dr. Casper, Chairman of the Forum, kindly asked me to submit some personal comments. We are very grateful to the Forum for the substantial contributions they have made and are continuing to make in these deliberations. A detailed report to the APS membership on the recommendations generated at that meeting will appear in the August Bulletin.)

All three articles make a plea for openness of any studies or other written output which might be generated by the APS in its proposed increased role in public affairs. Here I am in full agreement: The APS will be advising its membership and the public. The only caution I would like to add is that in the course of preparation of studies privileged communications have to be respected, and also the participants in the study should have the opportunity of sorting out facts and ideas in private, including the preparation of preliminary drafts, without public disclosure. This situation is no different than the method in which work in science is normally done: No one would compel a physicist to publish his work until he has confidence in the validity of the results.

A point covered by the correspondents deals with the knotty question of "who speaks for the Society?" There is a distinction here: an official of the Society (or the Divisions or the Forum) can speak as the office holder in questions, or he can speak for the organizational unit in questions. It is clear that once the APS has entered the public arena, unanimity

of the membership is not expected, even in those instances cited by Dr. Casper such as increased funds for basic research or conversion to the metric system. At the same time submission of individual comments on public issues is not a new development; in the past, and I strongly expect in the future, individual members of the APS will be willing to speak out on many public issues. The delicate problem is that when officers of the Society or its Divisions speak as the holders of the title in question, they will indeed implicate the membership, even if they do not speak for the membership. This is not a new problem. For instance, a Division of the APS, such as the Forum, which is elected by only a small fraction of the membership, will tend to implicate the entire APS, even though the Forum makes it perfectly clear that it speaks for the Forum. For instance, some may not draw as sharp a distinction between Forum policy and Forum sessions at APS meetings with official activities of the entire Society. Refusal by the Society to provide definite counsel or identifiable conclusions, as is suggested by Dr. Primack, does not solve the problem and would likely diminish the service to the public of the APS. While agreeing to the importance of adversary public proceedings (such as those arranged by the Forum at APS meetings), I maintain that there is an additional strong need for well considered and technically supported conclusions, publicly expressed.

Dr. Casper cites the ABM controversy as a classic adversary process and identified the consternation in public circles when faced with disagreements among those whom they believe to be "experts." He mentions a statement by a Congressional staffer that "The experts cancel each other." As a participant in that debate, I actually doubt that statement: the ABM debate set the stage for a new era for public discussion of heretofore non-public issues. In contrast, Casper cites as a success story the written interchange involving 21 assertions taken from my testimony by the Senate Armed Services staff and submitted to the DOD. The DOD replied

Panofsky (continued from page 9)

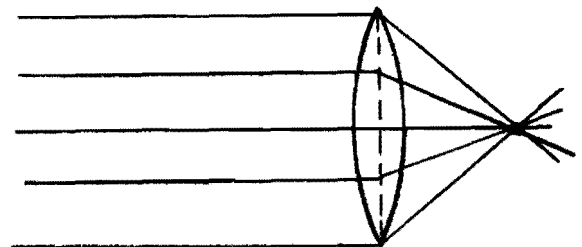
to these assertions and I was given the opportunity to reply to the DOD comments. Casper cites this exchange as resulting in "a most useful document" described with words like "concise, informative, genuine joining of the issues." I wish I could agree. Although the exchange was no doubt useful, it provided little, if anything, not already contained in the original testimony.

There is no clear answer to the spokesman issue. Schwartz objects to the current interim procedures adopted by the APS Council by asking: How can the officers or the President of the Society possibly speak for me? The answer is that the President is not speaking for the membership; he is speaking as the President; moreover, after all the bum did get elected! The essential point here is that any announcement made by an officer of the Society should state clearly what level of endorsement has been received - whether it is a personal statement by the President, whether it has been endorsed by the Executive Committee, the Council, endorsement by specific Divisions, or by the membership at large.

The correspondents all seemed to agree that once the APS enters the public arena there can no longer be a clear separation between what is purely scientific and what is a matter of judgment, including political judgment. In fact Casper speaks of the "myth" of scientific objectivity once the public arena is entered. However, remarkably, Primack, although agreeing that public questions tend to intertwine both subjective judgment and objective technical fact, still strives to define precise areas where it is or is not "appropriate" for the American Physical Society to enter into debates on technological issues. He feels that making specific conclusions on taking defined positions is not an appropriate role for the Society, but at the same time he believes that the APS should organize studies on technical issues relating to public policy. Yet even the organization, choice

of topic, staffing of a study, involve many judgmental or even political factors so that this particular boundary line is difficult to justify. Primack's criterion "It is important that technical studies by scientific organizations be received and judged on the basis of their technical excellence and not as political pronouncements" is an admirable one, with which I fully agree; however this test in itself does not constitute a clear standard as to the areas in which conclusions and advice given by officers of the Society identified as such would or would not be appropriate.

The correspondents discuss the need for a more "democratic" approach to the involvement of the APS in public affairs; yet what does this mean? Democracy does not imply actions on all items by the electorate; depending on the constitution under which a democracy operates and on the issues in question it means action of varying kinds by elected representatives. Naturally, much can and should be done to increase the responsiveness of the elected leadership (as well as that of the Forum!) to its membership, but labeling the conduct of the elected officers as undemocratic because a respondent is in disagreement with the action taken does not correspond to the usual definition of democracy.



Computer Science Reprints Wanted

Until two years ago Dr. Ovsei Gelman, of Tbilisi, USSR, was a highly regarded Soviet computer scientist, and the director of a large laboratory in Georgia. Then he applied for an exit visa to Israel. He was at once fired from his job, cut off from all professional contacts. For two years he has been isolated from scientific activity, while he waits in his apartment in hopes of leaving the Soviet Union.

He writes that it would be a great comfort and a professional support if persons in computer science would write to him, and would send him reprints of their work in computer science. Write to: Dr. Ovsei Gelman, Barnova 123, Tbilisi, Georgian SSR, USSR. Or you can send material to me and I will forward it: Earl Callen, Dept. of Physics, American University, Washington, D.C., 20016.

APS Congressional Fellows Named

Three physicists were recently named as recipients of APS Congressional Fellowships for 1974-75. Those selected were Allan R. Hoffman, 37, of the University of Massachusetts, Thomas H. Moss, 35, of IBM's Thomas J. Watson Research Center, and Haven Whiteside, 42, of Federal City College. The three will participate in a three week orientation program in early September and then arrange to work with a Congressman or Senator or on the staff of a Congressional Committee. The term of the fellowships is one year.

The Fellows were named by a Fellowship selection committee consisting of William Fowler, Cal Tech, chairman; Barry M. Casper, Carleton College, vicechairman, Sidney Millman, APS; Louis Rosen, Los Alamos; Thomas Ratchford, a staff member of the House Science and Astronautics Committee; and Werthamer.

"Store Front Physics" Contest

The Committee on Science Education for the General Public cordially invites you to design, build, and evaluate a "store-front physics exhibit." Three prizes of \$200 will be awarded to the winners of the contest and they will be invited to present papers on their projects at a session during the joint APS-AAPT meeting in Anaheim, California, 29 January - February 1, 1975.

The exhibit is to present information about physics or physicists to a person who who encounters it unexpectedly in his normal travel path. The exhibit must be of simple construction, cheap, durable, attractive, and easily replicated. It would normally be designed to explain or illustrate one physics concept. Direct interaction between the members of the audience and the exhibit is considered desirable but not essential.

The entry would consist of:

1. Complete directions for the replication of the exhibit.

2. A detailed description of its purpose, of the audience for whom it was prepared, of the location where it was displayed, and a careful description of the method used to evaluate the effectiveness of the exhibit in carrying its point to the audience.
3. Photographs or slides of and commentary on the actual construction of the project, the completed exhibit, the completed exhibit on site, and the audience interaction with the exhibit.
4. The evaluation of the effectiveness of the exhibit.

Members of the Committee will serve as judges. Entries which do not meet these criteria will be returned. Entries are due by 1, December, 1974. For further information or to submit entries, please write to Dr. Mary L. Shoaf, The American Physical Society, 335 East 45th Street, New York, New York, 10017

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