2) Resolutions should be written in the traditional format, beginning with one or more "Whereas" statement-of-fact clauses and concluding with a "Therefore be it resolved" paragraph which presents a position that follows logically from the stated premises.

3) Proposals and resolutions that deal with technical matters must be accompanied by substantive supporting data and references. The Committee on Council Affairs will seek the advice of appropriate referees on proposals that require specialized knowledge for their consideration.

4) Any proposal involving substantial expenditure of AAAS funds—such as a recommendation for the establishment of a study or investigative committee—should be presented in the form of a research proposal, with budget included, so that the financial implications of positive action are clearly stated.

5) All proposals and resolutions adopted by the Council at its forthcoming meeting will be published in the Proceedings Issue of *Science*. Proponents who wish the AAAS to undertake any wider distribution are requested to submit with their proposals or resolutions the names and addresses of individuals, organizations, or publications to which they would like to have copies sent.

Open hearings will be held by the Committee on Council Affairs at 2 p.m. on 18 February in the Sheraton-Boston Hotel to give interested persons an opportunity to speak for or against resolutions or proposals that have been duly submitted to the Executive Officer.

Scientific Freedoms and Responsibilities

On 17 June, Dr. Roger Revelle, chairman of the Board of Directors of AAAS, testified before the House Science and Technology Committee. Those hearings were part of that committee's continuing investigations into science policy, White House science advice, and coordination of federal research and development. The June hearings were held primarily to receive comments on HR 4461, titled "The National Science Policy and Organization Act of 1975," and a less ambitious Administration bill which would create a White House science advisory capability. Dr. Revelle's testimony is available on request from the Office of Science and Society at AAAS.

Following his testimony, Dr. Revelle answered a series of questions from members of the House Committee. One exchange, with Representative George E. Brown, Jr. (D-Calif.), seemed especially interesting to scientists and laymen alike. An unofficial edited excerpt from the transcript of that exchange follows.—RICHARD A. SCRIBNER, *Office of Science and Society Programs*

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MR. BROWN: . . . [Dr. Revelle,] you suggest that engineers and scientists should be guaranteed freedom to express their ideas about the probable consequences for society of their discoveries. . . . Is that right?

DR. REVELLE: Yes, sir.

MR. BROWN: What is it that you think inhibits their freedom to express their ideas? How could we give a guarantee other than [that] contained in the Constitution already?

DR. REVELLE: . . . One example of this, Mr. Brown, is the concern that many atomic scientists developed over the past two decades concerning the effects of atomic radiation. I think, particularly, [of] some scientists in Berkeley [who] were more concerned about these questions than they thought that the Atomic Energy Commission was. They had a hard time getting their views made public without losing their jobs. There are many examples of this kind where the scientists are concerned that what is being done may be dangerous or disadvantageous to the public interest. However, because of the organization constraints that they are under, they might not be able to state [their concerns].

MR. BROWN: That is a very sticky problem. What you are saying is that because many scientists get their support from government, or government-funded private institutions, they are reluctant to speak out in support of policies that would be contrary to the policies being followed by the people providing them with money. I recall a recent [book review] in *Science*. [The book] criticized the National Academy for the nature of some of its own studies over the past several years, including studies on the nuclear problem and the supersonic transport and so on, as being a little less than unbiased. That is because of the problem that you are referring to here.

Now, if this problem is created by the fact that scientists are getting their money from government, it seems to me that the government is not the proper agency to solve this. Maybe the scientist ought to provide his own money for the funding of some of these critical analyses of technologies. Maybe they should make their own reports that are free of any bias.

DR. REVELLE: As to the National Academy of Sciences, I am a member of [its] Council. We spend a great deal of effort to be sure that our committees are operating in public, operating properly, that . . . the private interests of the members are known to everybody. We try to get committees that represent a variety of points of view. The charge that the Academy suppresses points of view or ideas, well, I don't think [that] can be sustained in view of the very serious and continuing effort to make the reports as broadly based and representative as they can possibly be.

As to your other statement, it is clearly true that multiple sources of support for scientific research are highly desirable. The difficulty is that in the long run, sir, the buck stops with the federal government. . . .

MR. BROWN: My point was not to be critical of the Academy. . . . Rather, I have always been impressed with the degree that the medical profession, for example, has assessed itself such huge sums of money to influence public policy. Certainly they do this to retain their own independence from what they consider too much government control over their activities.

I am wondering why the AAAS, representing many people, or the National Academy, which is composed of some of the most prestigious scientists in the country, cannot develop a greater independence from the reliance on public funding?

I think it is important that we have a society in which there are several different sources of knowledge and of policy advice which are relatively free from too many interconnections. I am looking for ways in which this can be developed. I suggest that the scientists have the responsibility to accomplish this themselves. We probably won't do it with a Science Policy Act. It will probably have to be done in some other fashion. . . .