

Guest  
Panelists

Mr. DeLoach  
Mr. Snow  
Dr. Price  
Mr. Piel

OPENING REMARKS

Chris Miller  
Mr. Speaker  
Carl Albert

VICE PRESIDENT HUBERT HUMPHREY

PANEL ON SCIENCE AND TECHNOLOGY

HOUSE COMMITTEE ON SCIENCE & ASTRONAUTICS

WASHINGTON, D.C.

JANUARY 25, 1966

Security & Public Policy

I would like you to know, Mr. Chairman, how proud President Johnson is of the work which your Committee has performed. This Committee has provided a model of Congressional oversight. Your panel of 15 outstanding scientists and engineers has provided invaluable counsel -- not only to the 31 members of this Committee, but -- indirectly -- to the entire Congress <sup>and the administration</sup> ~~as a whole~~.

May I say to our distinguished Speaker, you can be very proud of having been <sup>the</sup> a father of this House Committee.

The record of history will show that you, Mr. Speaker, played a crucial role in the House of Representatives' effective response after Sputnik I.

May I say, too, to my friend Jim Fulton that one of the most gratifying aspects of this Committee's work is that you have acted on a bi-partisan or better still, non-partisan basis.

*and our other friends on the other side of aisle*

In the full Committee, in the Subcommittee on Scientific Research and Development chaired by Congressman Daddario, and in other Subcommittee work, there has been a scientific-like search for facts and for the best opinion. The Committee and its Subcommittee have "experimented" and the experiments have been very successful.

*→ Harth, Teague, Heckler*

*and in Senate  
FBI*

It is appropriate that this Committee, which enjoys so outstanding an international reputation, should be host today to so great a world scientist and scholar as Lord Snow. We are proud to have him as our guest.

~~May~~ I begin today by saying that, as Chairman of the National Aeronautics and Space Council, I am continually astounded by the expansion of scientific knowledge and its technological applications.

↳ One brief visit to Cape Kennedy is all the average citizen needs to realize how far science and technology have gone beyond his everyday capacity for understanding.

↳ I am in fact often reminded of the words of the Queen to Alice in Wonderland:

"Now here, you see, it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"

*Lord*  
(Sir Charles) Snow has warned of the gap between science and the humanities -- the two cultures, as he has called them.

There is danger of another gap: a gap between public policy and advancing science and technology. In government we face the task of closing that gap.

*Moderator of*  
~~One~~ of our panelists, Dean Price, has stressed the importance of this in his scholarly and helpful book, The Scientific Estate. He says:

"Only if a nation can induce scientists to play an active role in government, and politicians to take a sympathetic interest in science (or at least in scientific institutions) can it enlarge its range of positive freedom, and renew its confidence that science can contribute progressively to the welfare of mankind."

It has often been said that to govern is to choose.

Those of us in government, who have the responsibility to choose, must have the insights and foresights that scientists and technologists, in government and outside, can offer us.

Among the <sup>many</sup> decisions that have faced the President in recent months, many have involved scientific and technological considerations. I think of decisions concerning water resources, de-salting, oceanography,

arms control and disarmament, transportation, urban problems, education, defense -- and the list is by no means complete.

↳ And, our government is not unique in this respect. Virtually every developed nation is wrestling with the problem of adapting its laws, procedures, and institutions to meet advanced science and technology.

↳ To cite only two examples, the British government has recently reorganized its structure for dealing with scientific matters, and so has the French.

↳ Here in the United States the President has had a Special Assistant for Science and Technology since 1960. The Office of Science and Technology has been in existence only since 1962.

We are fortunate that, when the Space Age began, the Congress responded to it promptly and <sup>with</sup> foresight~~edly~~, by establishing the House Committee on Science and Astronautics and the Senate Committee on Aeronautical and Space Sciences.

↳ Our discussions here today illustrate the kind of creative partnership that has been established between the legislative and executive branches of our government, the scientific community, and industry.

↳ This is a partnership which we must maintain.

It is a partnership which, in time, may be able to develop solutions to many of the pressing problems of this half-century.

For instance: I think of the application to major public problems of the systems analysis techniques which have been so effectively used by industry.

These techniques, as you know, involve defining the goal to be accomplished . . . developing various hypothetical methods to achieve it . . . and testing out these solutions, through use of computers, to determine which one yields the highest ratio of effectiveness to cost.

∟ Under this approach, for example, we would consider transportation as the problem of how to move men and materials most effectively, rather than in terms of the particular problems of railways, airlines, highways and waterways.

∟ At present, we in government are ill-prepared to do so, for transportation is parcelled out among various government agencies -- 35 in all.

∟ The establishment of a Department of Transportation, as recommended by President Johnson in his State of the Union message, would make it possible to look at the

transportation problem as a whole, and if appropriate to draw upon systems analysis for its solution.

↳ The State of California, where many of our progressive aerospace industries are located, has already made a pioneering experiment in directing their expertise to some of its principal governmental problems. ↳ Under contract with the state, four leading aerospace companies recently analyzed specific problems -- transportation, garbage disposal, crime, and paperwork -- and came up with new ideas for their solution.

↳ I can visualize similar techniques being applied in the analysis of the most effective ways to deal with the pollution of our environment . . . our spiralling education and health requirements . . . the chaotic sprawl of our cities, and other priorities which face us as a nation.

Another promising area of partnership between government and science lies in the international field -- in what I like to call "science for peace."

International cooperation in the field of science and technology was, in fact, one of the most important matters discussed at the White House Conference on International Cooperation two months ago, which I had the privilege of chairing.

A distinguished Citizens' Committee, headed by Dr. Detlev W. Bronk of Rockefeller ~~University~~ <sup>Institute</sup> and Dr. Harrison Brown of the National Academy of Science, made imaginative proposals for further practical areas of international cooperation.

Above all, the Committee stressed the need to narrow the technological gap between the industrial and the developing nations -- not by slowing down the

technological progress of the former, but by speeding up that of the latter.

↳ The application of technology does not take place automatically or easily, but is an extraordinarily complex in and difficult process. Even/the United States, there are wide variations in the degree to which existing, on-the-shelf technologies are known and applied. (It was to speed up this process that the Congress enacted the State Technical Services Act last year).

↳ In the developing nations, people must be trained to understand and apply the new technologies. Moreover, these technologies must often be substantially adapted to meet local needs and conditions -- a process requiring not the mere skills of a copyist but creative scientific and technological imagination.

No one who has seen the festering social and political unrest in the poor two-thirds of the world -- as I have seen it -- can doubt the priority of helping to bring precious technological education to those who need it most.

*Yes Education even before capital.*

Yes, there are an abundance of opportunities at home and abroad for our partnership. As President Johnson has stated:

"It is imperative for political science and physical science to advance together, and to grow together and to have mutual understanding of each other. The politician who closes his mind to science is a disservice to his people and his time. The same is true of the scientist who closes his mind to politics."

Let us, then, in today's discussions participate with open minds and, in the knowledge, that we are in the midst of an age when man possesses not only the power to destroy himself but, for the first time, to bring mankind's benefits to parts of the earth still living in darkness and hunger.

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## OPENING REMARKS

VICE PRESIDENT HUBERT HUMPHREY  
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OFFICE OF THE VICE PRESIDENT  
WASHINGTON, D.C.

To: Ruth

From: Duke

Re: 1/25/66 House Science  
Committee Report

COMMITTEE ON SCIENCE AND ASTRONAUTICS  
HOUSE OF REPRESENTATIVES

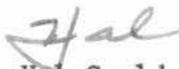
January 28, 1966

Mr. Julius Cahn  
Office of the Vice President  
Washington, D. C.

Dear Mr. Cahn:

Attached herewith that portion of the raw transcript of the Vice President's participation in the Seventh Meeting of the Panel on Science and Technology. The tape was sent to your office on January 25th.

I am also enclosing copies of the first photographs received in which the Vice President appears. Others will be forwarded as soon as reproduced.



Hal Gould  
Technical Consultant

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Chairman Miller. The Committee will please be in order.

I want to welcome you here. This is the Seventh Annual Meeting of the Committee on Science and Astronautics with its Panel on Science and Technology.

At this time, on behalf of the Committee, I wish to extend our sincerest welcome to the members of the Panel and to our invited participants, to our distinguished guests, and to the honored officials of the United States Government who will open these proceedings.

May I also extend special greetings to our renowned guest panelist from the United Kingdom, Lord Snow, who is accompanied by his very charming wife, Lady Snow.

The fundamental theme of our meeting this year is a very broad one, a most important one, and, at the same time, one that is extremely important. It is our belief and hope that the papers and discussions which you will hear these next two days will shed some real illumination on that theme -- Government, Science and Public Policy.

It is my very great privilege and high honor to present to you the keynoter of this forum.

Ladies and gentlemen, I am happy and honored to present to you the great Vice President of the United States, the Hnorable Hubert Humphrey.

(Applause)

1 Vice President Humphrey. Thank you, Chairman Miller,  
2 Mr. Speaker, and our distinguished joint leader of the House  
3 of Representatives, Congressman Albert, Lord and Lady Snow,  
4 Dr. Price, Mr. Piel, Dr. Suits, and members of the Panel,  
5 my fellow servants in Government and members here of this  
6 great Committee.

7 I want you to know, Mr. Chairman, how proud all of us  
8 are, and in particular how proud is President Johnson of the  
9 work which your Committee has performed in the past and now  
10 performs today and will in the future. This Committee has  
11 provided a model of Congressional oversight. The word  
12 "oversight" is one which is used frequently, Lord Snow, in  
13 the parlance of American Congressional Government, and it is  
14 a way of indicating not that you just glance over something,  
15 but the way in which you take deep perception into what the  
16 Government is doing.

17 Mr. Chairman, your panel of 15 outstanding scientists  
18 and engineers has provided invaluable counsel, not only to the  
19 31 members of this Committee, but, indirectly, to the entire  
20 Congress, to the Administration, and I believe to the entire  
21 scientific and industrial community.

22 May I say to our very distinguished Speaker that you, sir,  
23 can be very, very proud of the fact that you have been the father  
24 of this House Committee. The record of history will show that  
25 you, Mr. Speaker, played a crucial role in the House of

1 Representatives' effective response after Sputnik I, when  
2 America was awakened to the challenge of science and  
3 technology both at home and abroad, and in the United States  
4 Senate there was an illustrious Senator from Texas who was then  
5 the Majority Leader who joined hands with the Speaker of the  
6 House of Representatives and provided the leadership in that  
7 body for the establishment of a comparable committee to the  
8 one that is in the House, and I, of course, refer to the  
9 gentleman who is now President of the United States, Lyndon  
10 Johnson.

11 May I say, too, to my friend here, Jim Fulton, and to the  
12 other friends on his side of the aisle -- a good side of the  
13 aisle --

14 Mr. Fulton. The best.

15 (Laughter)

16 Vice President Humphrey. That is a subjective judgment.

17 One of the most gratifying aspects of this Committee's  
18 work is the manner in which all of you have acted on a bi-  
19 partisan or, should I say, a non-partisan basis.

20 In the full Committee and in the Subcommittee on  
21 Scientific Research and Development, chaired by Congressman  
22 Daddario, and in the other Subcommittee work chaired by such  
23 able Congressmen as my esteemed friend and colleague from  
24 Minnesota, Congressman Karth, and the great Congressman from  
25 Texas, Congressman Teague, and my old friend from West

1 Virginia, who is always bringing me West Virginians to say  
2 hello to, Congressman Hechler --

3 (Laughter)

4 Vice President Humphrey. -- I gather this happens else-  
5 where -- there has been a scientific-like search for facts  
6 on the part of each of these Subcommittees and the Subcommittee  
7 Chairmen for the very best of opinion.

8 The Committee therefore, and its Subcommittees, have,  
9 as we would say, "experimented", and the experiments have  
10 been most successful.

11 Now, it is appropriate that this Committee, which enjoys  
12 so outstanding an international reputation, both at home and  
13 internationally, should be host today to a very great world  
14 scientist and scholar, the distinguished guest who is with us,  
15 Lord Snow. We are very proud, sir, to have you as our guest  
16 and as a good friend and a great scientist.

17 I begin today by saying that as Chairman of the National  
18 Aeronautics and Space Council -- and I look out here and see  
19 my monitor and good friend, Dr. Ed Welch, who guides me in these  
20 matters -- I am continually astounded by the expansion of  
21 scientific knowledge and its technical applications.

22 Now, of course my friends that are on the Panel know  
23 that I am a scientist because, as a pharmacist, I insist on  
24 qualifying therefor. There are those like my friend Dr.  
25 Price from the University of Pennsylvania who says that my

1 chemistry does not even come up to freshman standards, but  
2 those are new standards. When I graduated it was all right.

3 I have always had a continuing interest and a very  
4 sincere interest in science and technology, and during my  
5 years in the Senate served as a Subcommittee Chairman on the  
6 Committee on Government Operations in the field of Science  
7 and Research.

8 One brief visit to Cape Kennedy is all the average  
9 citizen needs to realize how far science and technology have  
10 gone beyond his everyday capacity for understanding.

11 I am in fact often reminded of the words of the Queen  
12 to Alice in Wonderland. You will remember what the Queen said.  
13 She said:

14 "Now here, you see, it takes all the running you can do to  
15 keep in the same place. If you want to get somewhere else, you  
16 must run at least twice as fast as that."

17 That is why that Avis Company said "When you are No. 2  
18 you have to try harder", and you find out that you have to work  
19 a little harder at any one of these jobs nowadays.

20 Lord Snow has warned us of the gap between science and  
21 the humanities -- the two cultures, as he has called them.  
22 I think there is danger of another gap: a gap between public  
23 policy and advancing science and technology. It is in govern-  
24 ment that we must face the task of closing that gap.

25 As a matter of fact, it is only in recent years that

1 we have really understood the close relationship between  
2 public policy at the governmental level and science and  
3 technology.

4 The moderator of our panelists, Dean Price, has stressed  
5 the importance of this in his scholarly and helpful book,  
6 "The Scientific Estate". He says:

7 "Only if a nation can induce scientists to play an active  
8 role in government, and politicians to take a sympathetic  
9 interest in science (or at least in scientific institutions)  
10 can it enlarge its range of positive freedom, and renew its  
11 confidence that science can contribute progressively to the  
12 welfare of mankind."

13 It has often been said that to govern is to choose.

14 Those of us in government, who have the responsibility  
15 to choose, must have the insights and foresights that scientists  
16 and technologists, in government and outside, can offer us.  
17 It is for this reason, above all, that I compliment this  
18 Committee in bringing to it, not on the basis of some con-  
19 troversy over some particular bill, but on the basis of a  
20 seminar of a search for information and knowledge, the out-  
21 standing scientists and technologists of not only our country  
22 but of other countries, so that you are better informed, and so  
23 that we broaden the horizons of our understanding of public  
24 policy and science here at our Federal Government level.

25 Among the many decisions that have faced the President

1 in recent months, many have indeed involved scientific  
2 and technological considerations. I know that you have all  
3 studied the President's Budget. I have read with considerable  
4 interest some of the commentary. The fact of the matter is  
5 that the President, in designing his budget with the help of  
6 his advisors has kept in mind and high in his priorities  
7 the important role of science and technology and research  
8 and development.

9 In all matters in days like these, we didn't do everything  
10 that we should like to do all at once, but we have done much,  
11 and I want to emphasize that in the United States of America,  
12 all science and technology is not in government, so that even  
13 though the Federal budget at times may not be as much as some  
14 scientists may want, may I indicate that the private economy  
15 is strong, vital, prosperous, and I for one, as Chairman of  
16 the Space Council, deeply involved now in the scientific  
17 efforts of our government, call upon private industry, call upon  
18 the universities, our great institutes of science and technology,  
19 to expand our research activities, to expand our efforts  
20 in the field of research and development and, I might add,  
21 in the field of private industry these are tax deductible  
22 items, so I call upon you to be more generous with our great  
23 universities in your gifts. I call upon you to expand your own  
24 frontiers of research and of probing and of science and of  
25 technology and thereby to expand and increase the total

effts

1 national commitment to scientific inquiry and development.

2 I think of the decisions that our President has had to  
3 make, for example, concerning water resources, de-salting,  
4 oceanography, arms control and disarmament, transportation,  
5 urban problems, education, defense -- and the list is by no  
6 means complete -- and in each of these decisions factors of  
7 science and technology were involved.

8 I hope that there is a member here of the Committee on  
9 Government Operations, because I would like to encourage the  
10 Committee on Government Operations to make a complete tabulation  
11 of all the resources, manpower and financial, that are devoted  
12 by this government to research, development and science in all  
13 of the many areas of our government -- Commerce, Agriculture,  
14 Health, Education and Welfare, and our National Institute of  
15 Health, the Weather Bureau.

16 There are just a tremendous number of departments, bureaus,  
17 autonomous agencies that make a great contribution to science:  
18 The Smithsonian Institution, for example, the National Science  
19 Foundation, the Atomic Energy Commission.

20 Regrettably, in our budget I did not see the full  
21 tabulation of the scientific input, the resources dedicated  
22 to science, all of the input of resources of manpower and money.

23 Speaking now of these decisions that our government has  
24 had to make, I want to say that our government is not unique  
25 in this respect. Virtually every developed nation is

1 wrestling with the problems of adapting its laws, procedures,  
2 and institutions to meet advanced science and technology.

3 To state two examples: The British government has recently  
4 reorganized its structure for dealing with scientific matters,  
5 and so has the French. We ought to be able to receive some  
6 good information today from Lord Snow on certain parts of this.

7 Here in the United States the President has had a Special  
8 Assistant for Science and Technology since 1960. The Office  
9 of Science and Technology has been in existence only since  
10 1962.

11 Committees of Congress have been studying the science  
12 organization of our government for a long time, and we are  
13 fortunate that when the Space Age began the Congress responded  
14 to it promptly and with foresight by establishing this Com-  
15 mittee, the House Committee on Science and Astronautics,  
16 and the Senate Committee on Aeronautical and Space Sciences.

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20 scientific community, and industry.

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22 a partnership which, in time, may be able to develop solutions  
23 to many of the pressing problems of this half-century.

24 When I have spoken to some of our university audiences,  
25 I have admonished them to make themselves a part of the

1 community, to make their great staffs of dedicated professional  
2 people -- agents, so to speak, of the community -- participants  
3 in the community. We have only learned in recent years  
4 what a valuable asset a university is when it is blended with  
5 management and finance and with the skills of a community  
6 in the development of a whole new economy.

7 If I had my choice of an asset that could come to my  
8 state or my part of the nation where I live, it would be a  
9 greater investment in the university in the scientific aspects  
10 of our university with a blending of the finance and manage-  
11 ment and labor community with those scientific investments.

12 This is why when NASA comes to a great university with a  
13 grant, it is like planting a field of gold. There is a  
14 harvest soon to be reaped, a whole new partnership that creates  
15 new wealth, the wealth of brainpower, of scientific knowledge  
16 and the end product.

17 This living partnership is more than just an exercise  
18 in theory. It has become today a source of power and wealth  
19 and, as I have said, it is a partnership which can develop  
20 solutions if it is put to the task of many pressing problems.

21 For instance, I think of the application to major public  
22 problems of the systems analysis techniques which have been so  
23 effectively used by private industry.

24 These techniques, as you all know, since you have been  
25 involved with them, involve defining the goal to be

1 accomplished, developing various hypothetical methods to  
2 achieve it, and testing out these solutions, through use of  
3 computers, to determine which one yields the highest ratio  
4 of effectiveness to cost.

5 Under this approach, for example, we would consider  
6 transportation as the problem of how to move men and materials  
7 most effectively, rather than in terms of the particular  
8 problems of railroads, airlines, highways and waterways.

9 At present, we in government are ill-prepared to do so.  
10 First of all, we are the victims of habit; secondly, there  
11 is no one more timid than a person in government. He always  
12 has to be concerned about public reaction. Therefore, we  
13 must depend upon some of you who are not always standing  
14 for office or, as we say here, running for office, Lord Snow.  
15 I think sometimes it is better to stand; at least you know  
16 on what ground you are.

17 (Laughter)

18 We are very ill-prepared, for example, in the field of  
19 transportation, because transportation is parcelled out amongst  
20 various government agencies, 35 in all. That is a good mass  
21 meeting for even an incumbent Congressman.

22 The establishment of a Department of Transportation,  
23 as recommended by President Johnson in his State of the Union  
24 Message, would make it possible to look at the transportation  
25 problem as a whole and, if appropriate, to draw upon systems

1 analysis for its solution.

2 The State of California, where many of our progressive  
3 aerospace industries are located, has already made a pioneering  
4 experiment in directing their expertise to some of its  
5 principal governmental problems. I am sure that Congressman  
6 Miller is well aware of this. Under contract with the state,  
7 four leading aerospace companies recently analyzed specific  
8 problems -- transportation, garbage disposal, crime, and  
9 paperwork -- and came up with new ideas for their solution.

10 While some of these might seem slightly mundane, there is  
11 a real possibility that this country could be inundated with  
12 both paperwork and garbage unless we do something about it --

13 (Laughter.)

14 Vice President Humphrey. -- much less to talk about  
15 the problems of crime and the unbelievable problem of the  
16 movement of materials, and then in transportation.

17 I can visualize similar techniques being applied in the  
18 analysis of the most effective ways to deal with the pollution  
19 of our environment. We used to talk about these matters as  
20 if they were something far off in the distance. The truth  
21 is today that this great industrial complex known as the United  
22 States is the victim of every one of the matters that I have  
23 mentioned, transportation snafu second to none. As a matter  
24 of fact, I have often thought the enemies of this country ought  
25 not worry about attack -- just frighten us a bit.

1           The transportation glut in this country is a serious  
2 menace to health and national security in any major city.  
3 I was in New York City yesterday. They had a little snow  
4 which wouldn't be enough out where I live to even entice a  
5 child to take a sled out --

6           (Laughter)

7           VICE PRESIDENT HUMPHREY: -- and yet it snarled up the  
8 traffic, the power lines came down, the telephone system was  
9 in trouble. I don't know why people are worried about  
10 atom bombs. Truly, this is a serious matter.

11           The problems of disposal of waste are incredibly difficult,  
12 industrial waste, much less other forms of waste, and paperwork  
13 is the menace of government and industry today.

14           Then add to that pollution of our environment, our  
15 spiraling education and health requirements, the chaotic  
16 sprawl of our cities -- and everybody has a line about cities  
17 today. We have finally become aware of the fact that  
18 people live in cities -- and other priorities which face us  
19 as a nation.

20           Now, another promising area of partnership between govern-  
21 ment and science lies in the international field, in what I  
22 like to call "science for peace". I don't think we have really  
23 developed it nearly enough.

24           International cooperation in the field of science and  
25 technology was, in fact, one of the most important matters

1 discussed at the White House Conference on International  
2 Cooperation. I had the privilege of chairing that conference  
3 and I think it would be well for every single person in this  
4 assembly to read the recommendations and report of that  
5 particular section on science and technology.

6 A distinguished Citizens' Committee, headed by Dr.  
7 Detlev W. Bronk of Rockefeller University and Dr. Harrison  
8 Brown -- I see these gentlemen here -- of the National Academy  
9 of Science, made imaginative proposals for further practical  
10 areas of international cooperation.

11 Above all, the Committee stressed the need to narrow  
12 the technological gap between the industrial and the developing  
13 nations -- not by slowing down the technological progress  
14 of the former, but by speeding up that of the latter.

15 Just the simple things like availability of technical  
16 journals in a larger quantity in Latin America, Africa,  
17 Asia and other parts of the world. We train scientists in  
18 this country from many parts of the world only to have them  
19 go back to an environment not only not friendly to their  
20 advanced learning -- we have trained scientists in the use  
21 of the computer, or technologists who go home where there are  
22 no computers, and you wonder why they are dissatisfied.  
23 They lead some mighty fine protest movements after about a  
24 year. We bring people here and train them in the highest  
25 elements of physics, nuclear technology, only to have them

1 go back and find that there really is no reactor, very little  
2 of anything of the modern tools with which to work.

3 I have said with my fellow Americans there is a need of  
4 sharing -- sharing the tools as well as the learning and the  
5 knowledge, and I am hopeful that we can inaugurate such a  
6 program. I trust that this Congress will give it some  
7 consideration, tools that are no longer needed by an advanced  
8 economy such as ours, but tools which would fit the basic  
9 needs of a developing country very well.

10 The application of technology, of course, does not take  
11 place automatically or easily, but is an extraordinarily complex  
12 and difficult process. Even in the United States, there are  
13 wide variations in the degree to which existing, on-the-shelf  
14 technologies are known and applied. It was to speed up this  
15 process that the Congress enacted the State Technical Services  
16 Act last year, to bring the fruits of advanced technology to  
17 the people.

18 In the developing nations, people must be trained to  
19 understand and apply the new technologies. Moreover, these  
20 technologies must often be substantially adapted to meet  
21 local needs and conditions -- a process requiring not the mere  
22 skills of a copyist but creative scientific and technological  
23 imagination.

24 No one who has seen the festering social-political unrest  
25 in the poor two-thirds of the world, as you and I have seen it,

1 can doubt the priority of helping to bring precious techno-  
2 logical education to those who need it most. I am of the  
3 opinion that we have placed so much emphasis upon the export  
4 of know-how, of technology, of science and of education.

5 Yet we preach to ourselves day in and day out that true  
6 wealth is knowledge. We preach to ourselves and to the whole  
7 world that real power is brainpower, intellectual power,  
8 moral power, and yet when we deal with other nations we talk  
9 as if somehow or other what they really need are only the  
10 dollars, only the capital.

11 They also need the intellectual power, they need the  
12 technological capital, they need the Point Four in spades,  
13 the kind of a program that we instituted in this nation,  
14 and yet for some reason or other have sort of lost in the  
15 maze of finance and economics.

16 I am of the opinion that the world needs scientists,  
17 technologists and educators more than it needs financiers.  
18 You can use both, but, as we have said, sometimes you have  
19 to make choices and have priorities, and there is a hunger for  
20 learning, and it is in the learning that you create the wealth.

21 Time forbids that one should have an exposition today  
22 upon what we call foreign assistance, but the investment of  
23 capital without the investment of know-how is capital lost.  
24 You can't build a modern society without modern techniques  
25 that can be applied by the mind of man, and the mind of

1 man must be the mind of those persons who live in the area,  
2 so I make my plea once again to my fellow Americans that  
3 I would rather have my nation known as a nation of educators,  
4 scientists and technicians rather than as a nation of lawyers,  
5 bankers and financiers, if one has to make the choice. I  
6 don't want to make an invidious comparison, but sometimes we  
7 ought to place proper emphasis.

8 Yes, there are an abundance of opportunities at home and  
9 broad for our partnership. The President has stated it well:

10 "It is imperative for political science and physical  
11 science to advance together, and to grow together and to have  
12 mutual understanding of each other. The politician who  
13 closes his mind to science is a disservice to his people  
14 and his time. The same is true of the scientist who closes  
15 his mind to politics."

16 Let us, then, in today's discussions, and tomorrow's,  
17 participate with open minds and in the knowledge that we are  
18 in the midst of an age when man possesses not only the power  
19 to destroy himself, which we remind ourselves of repeatedly,  
20 but for the first time man possesses the power to bring mankind's  
21 benefits through science and technology to the parts of the  
22 earth that are still living in darkness and hunger. We can  
23 either rebuild and make a new world, or destroy the old one,  
24 and I suggest that we build on the foundations that we have,  
25 but build anew and direct our great knowledge, or great fund

1 of knowledge in science and technology with a spiritual  
2 dedication that all of it has but one purpose -- the  
3 emancipation of mankind from his fear, from his hunger,  
4 from his despair, and to imbue him with faith, confidence,  
5 optimism, love and hope. I believe this is what we mean  
6 when we put together public policy and science.

7 Thank you.

8 (Applause.)

9 Chairman Miller. Thank you very much, Mr. Vice President.  
10 Our very great thanks and appreciation not only for the substance  
11 and wisdom of what you have said, but for your willingness to  
12 come here today and say it. We will not forget it, you may  
13 rest assured.

14 Now it is my pleasure today to introduce to you a gentle-  
15 man who has been responsible for and closely associated with  
16 this Committee since its inception. Of course he needs no  
17 further introduction to you, my great friend, my mentor, the  
18 man at whose feet I am willing to sit, the Speaker of the House  
19 of Representatives, the Honorable John McCormack.

20 Mr. McCormack. By unanimous consent, the Vice President,  
21 who has other pressing matters, is excused.

22 VICE PRESIDENT HUMPHREY: I am sorry to go, because I  
23 love to hear my mentor. I have to go over and take care of  
24 that unruly body known as the Senate.

25 Mr. Fulton. May I add the Republican side agrees with



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