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Invitation: Speeches [1 of 7] [1992]

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"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9203678
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: ZUMPFT, Lisa: UNIVERSITY OF NEVADA, LAS VEGAS

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/31/92

SUBJECT: SHE IS FORWARDING A COPY OF A SPEECH THAT DR.
BROMLEY GAVE AT THE EPSCOR CONFERENCE AND ASKS FOR
CORRECTIONS TO ENABLE PUBLICATION.

DIRECTORATE STAFF
ASSIGNED: DIRECTOR'S OFFICE ASSIGNED:

ACTION STAFF
REQUIRED: DIRECT REPLY ACTION:

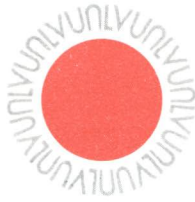
SENDER'S DUE DATE: 01/15/93
OSTP DUE DATE: 01/14/93 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
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REMARKS:

OSTP RECEIVED: 01/07/93 DEPT RECEIVED:
FILE: P-INVITATION-SPEECH

CENTRAL FILES:



ASSOCIATE VICE PRESIDENT FOR RESEARCH

UNIVERSITY OF NEVADA, LAS VEGAS
4505 MARYLAND PARKWAY • LAS VEGAS, NEVADA 89154-1002 • (702) 597-4240 • FAX (702) 597-4242

December 31, 1992

Dr. D. Allan Bromley
Executive Office of the President
Office of Science and Technology Policy
Washington, DC 20506

Dear Dr. Bromley:

We truly enjoyed having you as our main speaker at the Eighth Annual EPSCoR Conference in Las Vegas, Nevada, on October 15, 1992. Your speech included several pertinent points which I feel should be made available in print to the conference attendees. Therefore, I intend to include it in the conference proceedings. Enclosed is a copy of a transcription of your speech. But there are some names and committees which I could not decipher. Would you please make the corrections and return the transcript to me by January 15, 1993, so I may include them.

I am most willing to accept the corrections by fax - 702-895-4791, or by telephone - 702-895-4790. If you have any questions, please don't hesitate to call.

Sincerely,

Lisa Zumpft
Conference Coordinator

EPSCOR CONFERENCE, THURSDAY OCTOBER 15, 1992

REMARKS BY D. ALAN BROMLEY

Thank you Governor Miller. Ladies and gentlemen. Of course it is a great pleasure to be here and to be able to speak at this joint session. Just before leaving Washington I talked briefly with the President and he asked me to convey his congratulations too, on the growth, development of EPSCoR and the work that NISER is doing is typical of work that's being developed in states across the nation. So this is a very special occasion.

Some of you may wonder what exactly the Assistant to the President actually does. I thought I might illustrate that by over-simplifying just a little bit. One of the tasks, of course, is to translate what scientists and engineers do into terms that are understandable to politicians. That's difficult. What is vastly more difficult is to translate what politicians do into terms that are understandable to scientists and engineers. This translation business is sometimes a little hazardous. I wanted to illustrate that with an anecdote which was told to me recently by Guillermo (?) who is the science advisor to the President of Mexico. It seems a Mexican bandit knocked a small bank in Texas and escaped back across the border with the loot. The ranger [was] in hot pursuit. The ranger caught up with the bandits just south of the border in a little village, but there was a problem. The ranger could speak only English, the bandit only Spanish. So in time honored fashion the ranger deputized the most distinguished looking elderly gentleman in the village who could speak both languages as a translator. The following conversation ensued. "Ask him what his name is." "He says his name is Jose." "Ask him if he robbed the bank." "Yeah, he robbed the bank." "Ask him where he put the money." "He refuses to answer." So at this point the ranger pulls his pistol, put it to the bandit's head and said, "Try again." At this time, the bandit in very soft Spanish, said: "I hid it in the village well." The translation came back, "Jose says he is not afraid to die." The purpose of that little anecdote is to illustrate that you'd better damn well be sure that your translator shares your agenda. I want to assure you that I do, in fact, share your agenda.

It is very appropriate that this meeting should involve your two organizations because the link between individual universities and the economic health of surrounding communities isn't always straight forward. Many forces are needed to contribute to success; but as we enter an age in this nation of innovation, technology, human resources, working together, the university connection, in my opinion will be the key to success. It's true, that despite sometimes what appears to be overwhelming complexity at the local scale, at the national scale the link between science, technology, [and] economic growth is indisputable. Economists have demonstrated that knowledge, including knowledge generated by research and development, is the single largest contributor to the growth of our economy. The exact magnitude is sometimes hard to quantify, but fortunately in the past year a very distinguished economist, Edwin Mansfield, from the University of Pennsylvania, finished a study which involved examining more than 100 companies, in seven industrial sectors. Out of that study he was able to show that going back over the past 15 years looking at the return on federal investment in research supported at the nation's universities, the social rate of return ranged between 28% and 40%. If you compare that with the 10% to 12% that one normally hopes to attain from investments of a more normal kind, I think we can see that we have here an excellent argument for the federal support and indeed, state support, of science and technology.

My old friend, (?) Weiskopf (sp?) from MIT, former director general of (?) has a rather

succinct way of characterizing the contributions of research to modern economics. He once pointed out that total cost of all basic research from Archimedes to the present is less than the value of ten days of the world's present industrial production. It's a striking statement. Now, that talks about the returns, economic quantity, but there's a quality argument that is equally important. American people have come to take for granted standards of warmth, cleanliness, food, medical care, transportation, entertainment, that was absolutely unheard of, even 50 years ago. And it's quite clear that continued pursuit in science and technology are going to be critical to solving many of the major problems that we face on a planetary scale today. For example, the answer to environmental problems, problems that know no national boundaries, are going to come from increased emphasis on science and technology, and already we are seeing that applications of modern science is allowing us to move from disposal of toxic wastes to elimination of toxic wastes, frequently with strong economic benefits.

We've also reached a watershed in the whole area of medical care. From the beginning of history, medical care had as its goal the battle against disease. Finally, now, we are able to change the goal from battling disease to improving the quality of life of all of our citizens, at all ages. One of the most exciting projects that we have under way at the moment is the children's vaccine edition. This is a program being carried out at the National Institutes of Health which will result in giving children, not only in this country, but around the world, one or two injections within two weeks of birth which will protect them throughout their entire lives from some thirty of the diseases that plagued humanity since back in the dim mists of history. That, I consider enormously exciting.

Finally, the search for the unknown. The pushing back of the frontiers of human ignorance, is what characterizes our civilization. It's what separates us from the animals. It's a fundamental part of our culture, and in fact it's the greatest adventure to which we humans have access. Our universities play a central role in that adventure. Today, the United States as it has since World War Two, makes unique demands on its universities. Demands that are not matched anywhere else in the world. We ask the universities, not only to do the major fraction with the fundamental research, the search for new knowledge, but we also asked them to train each generation of new young minds to use that new knowledge in a creative and innovative fashion. We believe in the matter of deep faith, and again we're unique in this, that research and education are synergistic and inextricably linked; that you cannot be educated to work in science and technology unless you are involved in science and technology, and more than that, in good science and technology. That belief has led us in the U.S., together with strong and generous support from our taxpayers to build what is beyond question, the strongest science and technology enterprise that the world has ever seen.

As we examine education in the United States however, we're struck by stark contrast. At the graduate level we set the style and pace for graduate education worldwide. Some half of all the young people who leave their own borders to attend higher education come to the U.S. That's strong testimony to the quality of the education that we provide. We shouldn't forget that the foreign students who come here, when they go home, are the best ambassadors that we can possibly have. If they stay, they fill positions in our economy that we simply could not fill otherwise. I insist that the fact that more than 50% of our degrees in many fields, a growing number of fields, are being given to foreign citizens does not mean that there are too many foreign citizens. It means that there are too few American citizens in these important fields. At the undergraduate level, again we are unique. We are the only developed nation that has no centralized standards for what constitutes a college education. Because of that, we have

examples that far exceed world standards, and we have vast swamps of mediocrity that defy description. But on the average, we're competitive.

When you move to the pre-college level, then I would have to say that in many cases we are perpetrating a fraud on our children and on our grandchildren. For the first time in the history of this nation, our children and our grandchildren in many places are receiving education that is substantially inferior to that which we received. That's a national disgrace and a scandal. Of course this is something that the governor mentioned that President Bush has taken up as a major initiative of his administration beginning with the education summit in 1989. That was the first time since 1933 that any President had called all the governors together to confront a very real crisis and only the third time in the history of the nation. That summit has had a dramatic impact. First of all on the articulation of the goals that the president and the governors together set forth and then in the America 2000 initiative in which you in Nevada are very much involved. These are aggressive attacks on a deep underlying problem in this nation, one which we must solve, otherwise we will fail in almost everything else that we attempt to do.

Of course, I don't want you to get the idea that I believe that the problem is in mathematics, science and engineering alone. I was recalibrated from that sort of idea shortly before I left Yale to go to Washington. A marvelous young graduate from Harvard joined me to do his Ph.D. He now has the Ph.D. and is busily developing an excellent reputation as an international physicist. However, I used to think that perhaps one of the reasons why people joining me at that stage didn't know as much mathematics as I thought they should must mean that they were spending time in other departments as undergraduates, perhaps English, perhaps Philosophy, who knows. But the first sentence of this student's Ph.D. thesis draft read this way: "This field of research is so virginal that no human eyeball has set foot in it." suggesting that it wasn't the English department that was responsible. Just so that you don't think that this is a problem for physicists, I tried this on an old colleague in Biology, who said, "Ah, I've one of those too." His student had come up with the following memorable sentence: "In spring, the bird's gonads swell and fly north." It paints a graphic and painful picture.

The great strength that we have developed in our universities derives in very large measure from the relationships that were pulled together between the federal government and the universities immediately following World War Two. Since that time, the federal government has invested in the support of higher education, and that investment has increased by over two orders of magnitude during that period and now substantially exceeds \$10 billion per year. It's important to remember, however, that the growth has not been smooth and steady, rather there have been oscillations. And those oscillations are terribly destructive. Some of you will remember, back in 1957, when the Soviets first flew Sputnik, that our response here in the United States was little short of hysterical. We were panicked. How could the Soviets have possibly put an object into orbit while we were blowing hardware all over Florida? We really were shaken to our core as a nation. And to respond to that, we had a special program which was developed by the President's Science Advisory Committee, the (?) Gilman panel, that said unless we have a crash program we cannot, in fact, have the manpower or the new knowledge that we need for our space and military purposes during the 1960s. That was in 1962. So a crash program was mounted, and support for the universities increased by 20% per year. Support for students, traineeships, fellowships, grew at a similar rate. Now, unfortunately, in 1968 when the federal government looked at what was going on and recognized that the goals that had been established in the crash program in 1970 had already been met, so perhaps not surprisingly, they turned off the crash program. It was at this point that universities realized for

the first time, and they should have known better, that they were diode coupled (?) because during the period of rapid growth, they had first of all built large new buildings for space science, and environmental science, which had to be maintained, modernized. They had also, in the flush of easy funding, granted tenure to a lot of people who would never been given tenure under normal circumstances, when the crash program terminated they still had these people on tenure. What we effectively did through all of this was to freeze an entire generation and more of young people out of academic careers. This is the sort of problem that occurs when the support level oscillates as it did in the 1960s. It is very important for all of us to remember that the 1960s were the anomalous period, and today is much more the norm rather than the other way around.

Now, the problem that really has been of greatest consequence to the universities is that almost every one, deep down, harbored the hope that if they could just hold on for another year, the good old days of 20% per year growth would come back. So, for more than a decade, universities protected their most precious resource, their faculties, and deferred maintenance, deferred purchase of new equipment, deferred infrastructure. They found themselves in many cases, now with facilities that are older than the students certainly, and in many cases, older than the faculty with buildings that are falling down around their ears, leaking, falling apart, not at all adequate for modern research.

Back in the mid 1980s, David Packard and I chaired a panel for the White House Science Council. At that time we and several other groups, (?) Dan Fukway in the Congress, the Association of American Universities, all agreed that what we required was about \$10 billion as a catchup fund to allow the universities to bring their infrastructure up to acceptable state and then we had to work out a way for the cash flow from use charges, amortization, and other federal reimbursements of the universities for use of their facilities and research to make it possible for the universities to be self-sustaining on a continuing basis thereafter. We recognized that this would be about \$10 billion in the mid-80s. We thought that it should be about half supplied by the federal government and half from non-governmental sources. We tried to get the program in place to do that.

More recently the NSF has again examined the situation and they now say the cost will be \$12 billion: \$8 billion for new construction and \$4 billion for modernization. Unhappily, because of the budget situation, we have been unable to come up with such a program. But I remain convinced that we desperately need to do it because, in its absence, we are going to see continued congressional earmarking that avoids the peer review process, that avoids merit, examination of proposals, and end-runs, the focus on excellence that has served us so well since the beginning, in fact, of our national activity in science and technology.

...In this administration...we believe that the heart and strength of American science and technology remains the individual investigator in the nation's universities, in each of the budgets that we have sent to the congress we have requested roughly 10% increase specifically for those individual investigators at universities. And the Congress has responded. Last year, for example, we requested an increase of 13% for research and development, and the Congress [responded] to within one-hundredth of a percent. Now, what is remarkable about that, is the fact that we are dealing in a period when by congressional administration agreement, we have capped domestic discretionary spending. In order to get an increase for science and technology, we necessarily have to find other programs; programs with strong constituencies, vocal constituencies frequently, that were prepared to phase out, terminate. We have been able to do that and will continue to do it, and this is the strongest evidence that we can provide that we

believe that investment in science and technology is critically important. Something that is important for us all to bear in mind, is that there is a consensus, a broad consensus, involving not only the administration but the Congress, that we in this nation are under investing seriously in science and technology. Our budget problems make it impossible for us to respond as generously as we would like to this consensus. But, as I have indicated, we are doing better than has been done in the past despite the fact there are tremendous opportunities out there and there is real pain out there to which we are not able to respond.

Now, there are a number of other problems that I could, in fact, talk about, but let me for a moment just touch on this matter of pain in the academic community. I recognize that a lot of young people are finding it increasingly difficult to find the support that would enable them to follow up on clear opportunities that they see before them, that if followed up could have a potential of great return to our society. The problem is a simple one. The fact is that 87.5% of all the scientists and engineers, who have ever lived in the United States are alive today and writing proposals. Whereas less than 4% of the taxpayers are out there to respond to those proposals. In many ways we are victims of our own success. We have created wonderful opportunities, important opportunities, and we have young people trained to follow up on them, but we simply are unable to support all of them. What this means to me, and something we have found out recently in a series of meetings that we have held across the nation, at major universities, is that we in the universities, (I still consider myself a faculty member) have to broaden the scope of career potential for our students. I was saddened at several of our meetings at major universities. It's more prevalent the more prestigious the university, when post doc after post doc, student after student at graduate levels, said, that if my grant doesn't come through I might even have to consider industry. That kind of attitude, where the only acceptable career is to clone your professor is his laboratory or her laboratory, has very low survival potential. It is, I think, an indictment of those of us, and the older faculty, that we have not made our students aware of the tremendous opportunities and challenges that lie outside as well as inside of academia.

We really should, at this point, be celebrating in the university community, a fantastic half century of progress, success, productivity, every good thing that you can imagine. We are not doing that because, unfortunately, a coincidence in time of several unfortunate things: shortage of funding and of some very few but highly visible examples of misconduct on the part of a few universities and a few senior people in those universities, some sort of world class arrogance in the response to some of this misconduct. All of this has changed the environment in which universities must function. I felt that it was very important to begin to recognize that we could not take for granted the leadership that we've enjoyed for decades in higher education. While we were focussing on elementary education, (as we should, because that is in a disastrous condition,) we cannot take higher education for granted. I have two major committees now addressing and examining the interface between the universities and the federal government. One is the President's Council of Advisors in Science and Technology, the only group that reports directly to the President without any bureaucratic filtering. That's the first time that that has happened in 25 years. That group has a panel chaired by David Packard and by Harold Shapiro from Princeton, looking at the interface from the outside. We have another in the inside chaired by David Kerns, the former CEO of Xerox, now Deputy Secretary of Education, Vice Chairman Bernadine Healy, and Walter Massey, from NIH and NSF, put together funding for more than 85% of all university work. They will be reporting after the election, because this is much too important a topic to get it mixed up in partisan politics.

But, it is already clear, that one thing is inescapable: change is inevitable. And that change, among other things, is going to be that hereafter universities simply cannot anticipate; no university can look forward to maintaining departments in all the fields where academic activity is taking place. Nor can any university hope to have activity in all the sub fields of the departments that it does retain. What it simply means is we have to be selective and pick those areas in which we can achieve excellence. We have to recognize that there are possibilities for niche excellence in responding to local conditions. For example, the University of Rochester and its world class optics activity, the University of Akron and the world reputation it has in rubber science. This doesn't mean at all that this is inferior science. It's world class science, but it responds to local conditions. And of course, one of the very important things and one of the very important aspects of why we're here is the fact that we as a nation really have an obligation to provide high quality education, on a geographic and spread basis, because well more than 50% of all the young people in America go to university, college, within 50 miles of the place where they were born. It is quite clear that the EPSCoR program is one that has tremendous potential for developing the synergy between research and education has to be on excellence. That's why we in the federal government have been so delighted that the state programs have made excellence such a major focus of their approach, that we have a guarantee before we even see the proposals, that they have been thoroughly merit reviewed and represent excellent science. In the fiscal year that has just ended, the NSF EPSCoR program distributed over \$18 million to institutions in 18 states and in Puerto Rico. This federal funding is very highly leveraged, factored between 3 and 4 usually, with other funding, state, private, foundation, what have you. Because of the success of this program, we have pushed, in the Bush administration, to develop EPSCoR like programs in a number of other agencies. We have mandated them. The Congress has joined in mandating them legally, in NASA, Health and Human Services, Department of Energy, Department of Defense, Environmental Protection Agency and the U.S. Department of Agriculture. In fiscal 93, \$31 million has been appropriated in these EPSCoR-like programs and \$24.5 million appropriated for continuation of the NSF program. We've gone up, as you see, from the \$18 million of last year to something like \$56 million is this coming, year and I fully anticipate that this growth will continue. The fundamental point that will make it continue is the focus that you have on excellence and the maintenance of that focus, because it bears emphasis that poor quality research leads to poor quality education and does nothing whatever to attract economic development to the area. And so, I must say that I congratulate all of you. This program is a relatively young one. It has already had a marked impact on institutions across the nation. I have every confidence that it will continue to do that.

This is just part of a general program that we have undertaken in this administration to strengthen the ties between the federal government and the state's and region's major cities of the nation. I want to just close by telling you that we are just now about to announce the membership of a new presidential council, the Intergovernmental Council on Science, Engineering and Technology. It will be known as INTERCET and will be parallel to (?) and to (?), the other two councils. I have the privilege of chairing all of them, so it's my responsibility to make sure that they work. The intent of this particular council will have among its members governors, former governors, state legislators, mayors of major cities and so on. The purpose of this Council will be to make recommendations as to how better to bring the resources of federal government to bear on problems and opportunities at the state and regional levels.

During this past several years I have spent a fair amount of time working with representatives of various states and cities, but unfortunately it has been on a rather fragmented case-by-case basis. I have become convinced that there is a tremendous opportunity for us to improve the communication and cooperation between the federal government and the municipal and state governments across the country. Next week, I'm meeting with over 40 of the science advisors to the state governments, and our purpose there will be listen to what these science advisors have to tell us about what we can do help to them in moving forward science and technology in their states. Most of the states that have science advisors also have commissions of one kind or another related to science, engineering and technology that act to coordinate, to integrate, to pull together the state programs. We hope to provide channels of communication to all the federal agencies so that in fact they can function more effectively within their sectors, and they can help us to function more effectively at the federal level. In summary and in conclusion let me simply say that despite the difficulties in which we all find ourselves embroiled from time to time, I believe that we are on the threshold of a tremendous era of new discovery, more effective utilization of science and technology throughout the nation. Because we spend more of the support of research and development than do Japan, Germany, France, United Kingdom and Italy combined, we obviously share a responsibility to work with our friends abroad. We have everything to gain from maintaining the open society that we have always had both in basic research and in technology. I have been arguing since I took office that we should not ever try to prevent the flow of science and technology from the United States but rather we should become better negotiators, and be sure that when the flow goes from the United States that a reciprocal flow of equal benefit comes back to us. If we do our homework, that is definitely possible.

So, ladies and gentlemen, it has been a pleasure, both personally and on behalf of President Bush, to participate in this joint session of two vitally important organizations. I bring you both of our congratulations on what you have achieved and our warmest best wishes for every success for what you do in the future. Thank you ladies and gentlemen.

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9203506
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: ANDERSON, DAVID R.: CANADIAN NUCLEAR ASSOCIATION

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/26/92

SUBJECT: A THANK YOU FOR ACCEPTING THE INVITATION TO SPEAK AT
INC 93 IN TORONTO AND A REQUEST TO SEND A COPY OF
YOUR ADDRESS NO LATER THAN SEPTEMBER 15, 1993.

DIRECTORATE STAFF
ASSIGNED: DIRECTOR'S OFFICE ASSIGNED:

ACTION STAFF
REQUIRED: AS/WHEN NECESSARY ACTION:

SENDER'S DUE DATE: 09/15/93
OSTP DUE DATE: 09/15/93 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

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November 26, 1992

Dr. Allan Bromley
Assistant to the President for Science and Technology
Old Executive Office Building
17th St. Pennsylvania Avenue North West
Suite 358
Washington D.C.
U.S.A.

MAIL ROOM

Dear Dr. Bromley,

Thank you so much for accepting Doug Milton's verbal invitation to be one of our four Keynote Speakers at INC 93 in Toronto, October, 1993. Your topic is "Technology Development". The three other topics are listed in the attachment which I have enclosed along with a copy of the Preliminary Program. Your address is to be given to the opening plenary session of the Congress on the morning of Monday, October 4, 1993. I suggest that you should arrive the day before. We will reserve a room for you at the Sheraton Centre Hotel where the congress is being held. The Keynote Session will occupy the first two hours of Monday morning. We are asking each of our speakers to limit their address to a maximum of 25 minutes. Would you please send a copy of your address to reach me no later than September 15, 1993 as we wish to reproduce it for distribution after you have spoken.

I am delighted that you have agreed to accept this important task of launching our conference. Your address and those of your fellow Keynote Speakers will set the tone for the sessions which follow as the congress embarks on the vital task of conceiving the principles and policies necessary to move the world towards a better future. Please do not hesitate to let me know if I can be of any assistance in your preparations for the congress. I look forward to meeting you in October, 1993.

Yours truly,

David R. Anderson
Chairman and Chief Executive Officer
INC 93 - Conference Chairman

144 Front St. W
Suite 725
Toronto, Ontario
Canada
M5J 2L7

Tel.(416) 977-6152
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DRA:mr
Attachments

cc: Dr. T. Rummery
Dr. G.A. Pon
Hon. J.M. Reid

INC93

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OCTOBER 3-6, 1993
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THE CONGRESS

INC93 (International Nuclear Congress) will take place in Toronto on Oct. 3 to 6 1993. The Congress will bring together world leaders, decision makers, and nuclear practitioners to explore the issues which must be resolved to launch the second nuclear age. It will provide maximum opportunity for discussion and debate. INC93 is sponsored by the Canadian Nuclear Association and the Canadian Nuclear Society. CoSponsors and Cooperating Organizations are listed on the left and represent the major international nuclear organizations. In addition cooperating organizations include the IAEA, OECD, and the World Bank. The program format of INC93 is patterned after the very successful World Energy Congress held in Montreal in 1989.

THE KEYNOTE ADDRESSES (KA)

The Congress Program opens on Monday Morning Oct. 4 with the Keynote Addresses which will introduce the sessions that follow in the next few days. There will be four Keynote Speakers one for each of the following topics.

- * Future Energy Needs
- * Social Issues & Environmental Implications
- * Economics and Financing
- * Technology Developments

These distinguished speakers will challenge the platform and the audience to address various views and perspectives. This format will give coherence to the task before the Congress of formulating the principles and policies required to meet the challenge: "Towards a Better Future".

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TORONTO**



Courtesy of CN Tower

**International Nuclear Congress
and Exhibition
October 3 - 6, 1993
Sheraton Centre, Toronto, Canada
*Preliminary Program***

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9207843

ORIGINATOR: 02

SPEECH: YES NO

FROM: NAPHAS, Jim: TECHNICAL MARKETING SOCIETY OF AMERICA

DATE OF EVENT: 10/28/92 THRU: 10/29/92
TENTATIVE DATES:

LOCATION OF EVENT: WASHINGTON, D.C.

TIME OF EVENT:

SUBJECT: AN INVITATION TO ADDRESS THEIR CONFERENCE ON
NATIONAL SCIENCE AND TECHNOLOGY POLICY.

RSVP: 07/21/92

CONTACT PERSON:

CONTACT NUMBER: 301-534-4871

INVITATION ACCEPTED? YES NO

COPIES TO: PHYSICAL SCIENCES
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REMARKS:

DATE OF LETTER: 07/30/92

DATE RECEIVED: 07/07/92

FILE: P-INVITATION-SPEECH

QC: IND

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Technical Marketing Society of America

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June 30, 1992

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Litton Data Systems
Van Nuys, CA

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Gordon Williams
Vice President Group Development
TRW
Redondo Beach, CA

Dr. D. Allan Bromley
Assistant to the President for Science Technology
Science and Technology Policy
Old Executive Office Building
Washington, DC 20506

Dear Dr. Bromley:

The Technical Marketing Society of America is planning a
major conference on:

Research and Development Conference

-- Exploring Emerging Technologies and Technology Initiatives --
28-29 October 1992
Washington, DC

This conference will focus on the multitude of key emerging technologies and initiatives as outlined in the "Critical Technologies List", the "Critical 21 List", as well as emerging commercial technology forecasts. The conference is slated to review government plans and programs to boost technology and innovation, R & D activities and opportunities, technology transfer, and assessments of emerging technologies. We are pleased to invite you (or someone from your organization you could recommend) to give a presentation on:

"Keynote Address: National Science and Technology Policy"

Incidentally, the title of your presentation may be changed to suit your preference. Each speaker will be given a one-hour time slot; we suggest a 45-minute presentation allowing 15 minutes for questions and answers.

I assure you that we will make every effort to minimize the administrative burden associated with your participation as a speaker. No formal paper is required -- we request only that you have a viewgraph type of presentation and provide a copy of the viewgraphs to us for inclusion in the conference documentation.

June 30, 1992

We do need, as soon as possible, the following information from you:

- Proposed Title for your presentation
- Approximately 6-8 Key Subtopics you will address (Bullet Points)
- A recent biography

The enclosed brochure from a prior conference illustrates the type of subtopic needed. Incidentally, the title of your presentation may be changed to suit your preference. I will telephone you on or about July 7 to answer any questions you may have. If you have any questions regarding this invitation I can be reached at (310) 534-4871.

TMSA is a non-profit, professional organization comprised of management, technical, and marketing professionals. It was formed in 1974 to provide educational and technical benefits to its members as well as market insights provided by conferences such as this one on Research & Development. Conference subjects, incidentally, are most often suggested by TMSA members. They will be most grateful for your participation.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'Jim Naphas', with a stylized, flowing script.

Jim Naphas
Program Manager

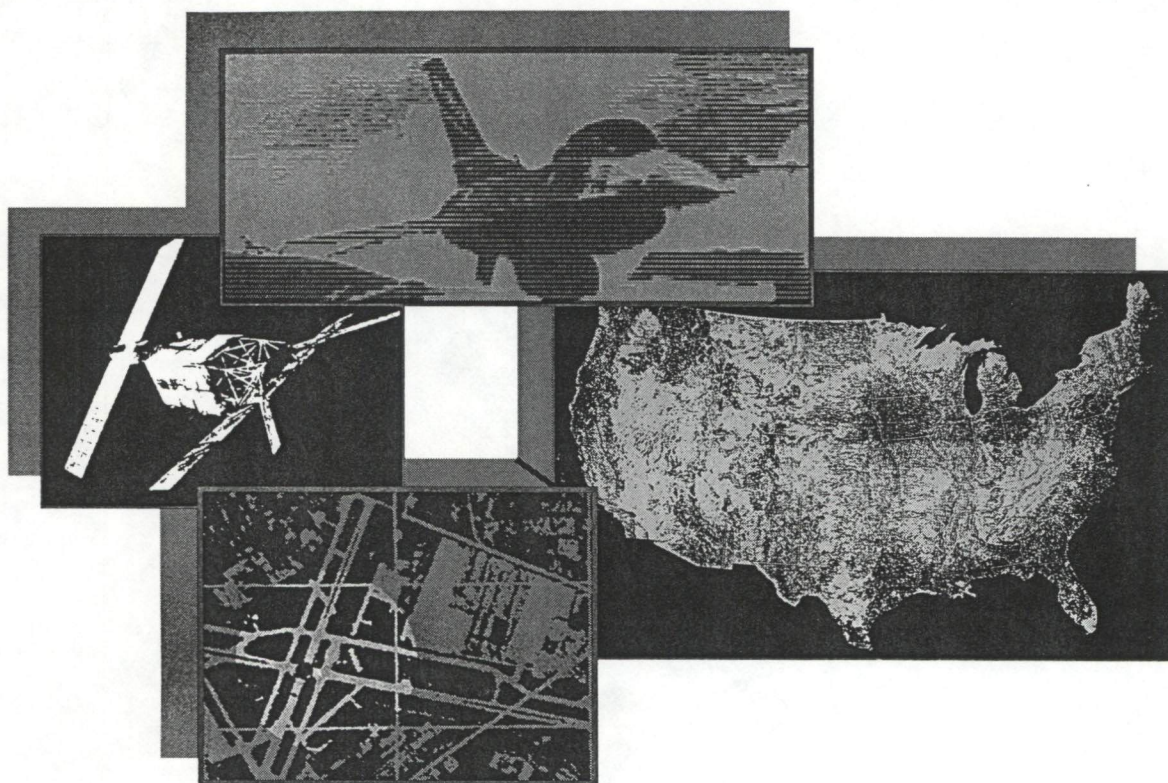
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encl.

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Critical Trends, New Strategies & Future Opportunities



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TMSA
Technical
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WASHINGTON, DC
June 25-26, 1992

Conference Management by Technology Training Corporation

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9202198

ORIGINATOR: 02

SPEECH: YES NO

FROM: THORNDIKE, Elizabeth: GLOBAL CLIMATE CHANGE

DATE OF EVENT: 12/08/92 THRU: 12/10/92

TENTATIVE DATES:

LOCATION OF EVENT:

TIME OF EVENT:

SUBJECT: AN INVITATION TO GIVE THE OPENING REMARKS AND CHAIR
THE OPENING SESSION AT THEIR 1992 WASHINGTON
CONFERENCE.

RSVP: 08/18/92

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: ENVIRONMENT

REMARKS:

Not recommended
Maynard agrees
R.

DATE OF LETTER: 07/29/92

DATE RECEIVED: 08/04/92

FILE: P-INVITATION-SPEECH

THE WHITE HOUSE
WASHINGTON

August 13, 1992


Dear Elizabeth:

Thank you for your kind letter of July 29 inviting me to give opening remarks and chair the opening session at the 1992 conference on **Global Energy Strategies: Living With Restricted Greenhouse Gas Emissions** scheduled for December 8-10, 1992.

Because of our keen interest in environmental matters I would have like to join you, but I have a conflict of long standing during that time period, so I must regretfully decline.

Thank you for thinking of me and I would like to offer my best wishes for a successful conference on the exceedingly important subject of the environment.

With best wishes,

Sincerely yours,


D. Allan Bromley
The Assistant to the President
for
Science and Technology

Ms. Elizabeth Thorndike
President
Global Climate Change Digest
Center for Environmental Information, Inc.
46 Prince Street
Rochester, New York 14607

Global Climate Change

Digest

02 AUG 4 1992

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July 29, 1992

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Dr. Robert W. Pratt
Editor

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Old Executive Office Building
17th St. and Pennsylvania Ave., NW
Room 358
Washington, D.C. 20506

Dear Allan,

I write to invite you to give the opening remarks and chair the opening session at our 1992 Washington conference, Global Energy Strategies: Living With Restricted Greenhouse Gas Emissions, to be held December 8-10.

Appended to this letter are the draft agenda, a list of steering committee members, and a copy of last year's program showing cosponsors

I do hope it will be possible for you to accept our invitation for December 8.

I also write to request your assistance in directing us to an additional appropriate source of federal funding in support of the conference.

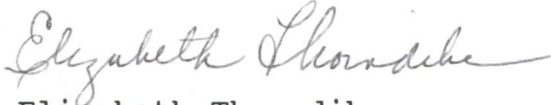
We are pleased that EPA and EPRI have committed significant funding and we are most grateful for funds or pledges already received from United Nations Environment Programme, American Gas Association, World Resources Institute, World Wildlife Fund, Motor Vehicle Manufacturers Association, and the U.S. Department of Agriculture. However, we are still short \$40,000. A copy of the conference budget is enclosed.

It is my understanding that funds for this kind of

outreach, and education process on global climate change exist, but it is difficult to pinpoint them. Your guidance would be greatly appreciated.

Very best wishes.

Sincerely,

A handwritten signature in cursive script, reading "Elizabeth Thorndike". The signature is fluid and elegant, with a long, sweeping underline.

Elizabeth Thorndike
President

ET/sc

Encls.

Withdrawal/Redaction Sheet

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Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01a. Budget	Budget for 1992 Annual Conference and Proceedings, Center for Environmental Information, Inc. (4 pp.)		(b)(4)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: Invitation: Speeches [1 of 7] [1992]

Date Closed:	2/23/2010	OA/ID Number:	62018-004
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AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
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 (b)(9) Release would disclose geological or geophysical information

DRAFT 7/28/92

Ninth Annual Conference
Global Energy Strategies: Living With Restricted
Greenhouse Gas Emissions

Tuesday, December 8
(exact times to be adjusted)

9:00 **Welcome**
 Opening Remarks
(9:15- **Session I - The Potential for Non-Fossil Fuel Energy**
12:45) **Sources***
9:15 Solar - **Scott Sklar**, Exec. Dir. Solar Energy
 Industries Association
9:50 Wind - **Randy Swisher**, Exec. Dir. American Wind Energy
 Association
10:25 Break
10:55 Bio-Mass - **David Reinbolt**, U.S. Congress Staff
11:30 Tidal, Hydro, Fuel Cells - **Linda Ciocci**, Exec. Dir.
 National Hydropower Association
12:05 Nuclear - **Richard Wilson**, Harvard University
12:45 Lunch
(2:00- **Session II - The Potential for Reducing Carbon**
5:00) **Emissions through Efficiency***
2:00 Transportation Sector
2:30 Industrial Processes, **Marc Ross**, Professor of Physics,
 University of Michigan
3:00 Residential/Commercial/Institutional/Buildings, **Arthur**
 Rosenfeld, Lawrence Berkeley Laboratory
3:30 Break
4:00 Utilities/ Co-generation
4:30 Potential for Capture of CO₂, **Meyer Steinberg**, Senior
 Chemical Engineer, Brookhaven National Laboratory

* Each speaker will address their topic around framework of the
following common set of questions:

1. engineering - feasibility and availability or needed
 technology
2. economics - cost per kwh and in GNP
3. time scale for quantitative availability
4. implications for recent UN and other decisions
5. greenhouse gas impacts
6. barriers and incentives to use
7. societal considerations - population, public
 perceptions, the public as decision maker, lifestyle
 changes
8. geo-political implications
9. energy storage capability
10. international competitiveness

Wednesday, December 9

(8:30-12:00) **Session III - Energy Policies and Strategies in the U.S.**
8:30 EPA Office of Policy and Planning - **Alex Cristofaro**
9:00 Electric Power Research Institute - **Richard Richels**
9:30 Alternative Energy Future (Alliance to Save Energy, American Gas Association, Solar Energy Industries Association) - **Nelson Hay**, AGA
10:00 Break
10:30 National Association of State Energy Officials - **Embricht** (invited)
11:00 Why do the Strategies Differ? - **D. Montgomery**, CRA (invited)
11:30 Panel Q&A
12:00 Lunch
(1:15-2:45) **Session IV - Global Energy Strategies - The Perspectives of Developing Countries and Economies in Transition***
1:15 Russia - **Vashnukov?** (invited)
1:45 India - **Pachauri** (Tata Institute) (invited)
2:15 South America - **Castillo - Olade** (invited)
2:45 Break
(3:15-5:15) **The Perspectives of Developed Countries**
3:15 Canada - **Edward Piché**, Ontario Ministry of the Environment (invited)
3:45 European Community
4:15 Japan
4:45 Discussion (Panel)
5:15 Adjourn

Thursday, December 10

(8:30-12:30) **Session V - Global Energy Strategies**
8:30 Population Projections and Energy Needs (tentative title)
9:15 Implementation Strategies Which Integrate Concerns of Developing and Developed Nations - Post Rio Proposals for Emission Credits, Joint Implementation, Comprehensive Approach
10:00 Break
10:30 Panel Discussion (including previous speakers)
12:00 Concluding Presentation - **M. El-Ashry**, Director, Environment Department, World Bank (invited)
12:30 Adjourn

(sc\dec92.agd)

Center for Environmental Information, Inc.
1992 Annual Washington Conference
Steering Committee

Christopher Bernabo
President
Science and Policy Associates, Inc.

Alex Cristofaro
Director, Air and Energy Policy Division
U.S. EPA

Roger C. Dower
Director, Climate, Energy and Pollution Program
World Resources Institute

Christopher Fox
Assistant Director, Center for Global Change
Univ. of Maryland at College Park

T.J. Glauthier
Director, Energy and Climate Change Program
World Wildlife Fund

Charles Herrick
Associate Director for Environmental Trends
Council on Environmental Quality

Gordon J. MacDonald
Institute on Global Conflict and Cooperation
University of California, San Diego

Lester Machta
Air Resources Laboratory
NOAA

Donna Mercado
Manager, Environmental Analysis
American Gas Association

(over)

Ralph Perhac
Former Senior Scientific Advisor
Environment Division
EPRI
Richard Richels
Director, Energy Analysis and Planning Dept.
EPRI

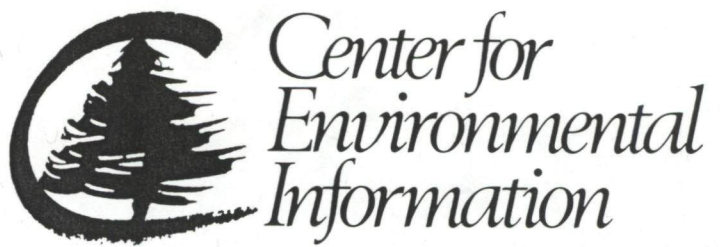
Carol Werner
Director, Energy Program
Environment and Energy Study Institute

James C. White
Center for Environmental Research
Cornell University

Richard Wilson
Director, Northeastern Regional Center
for Global Environmental Change
Harvard University

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1991 Annual Report



GLOBAL CLIMATE CHANGE: LINKING ENERGY, ENVIRONMENT, ECONOMY and EQUITY



December 5-6, 1991,
Washington Plaza Hotel, Washington, D.C.
Eighth Annual Conference of the Air Resources
Information Clearinghouse,
a project of the
Center for Environmental
Information, Inc.

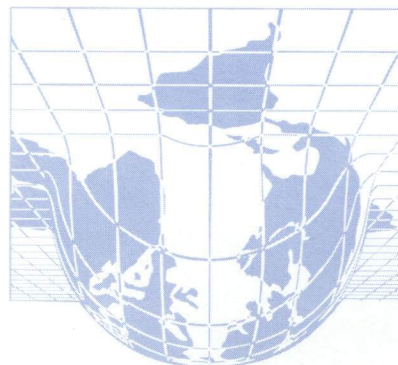
Location:

Washington Plaza Hotel
Massachusetts and Vermont Avenues, NW
Washington, DC 20005
202-842-1300 or 800-424-1140

Dates and Times:

Thursday, December 5, 1991,
7:45 a.m. - 5:30 p.m.
Friday, December 6, 1991,
7:45 a.m. - 3:30 p.m.

GLOBAL CLIMATE CHANGE: LINKING ENERGY, ENVIRONMENT, ECONOMY and EQUITY



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Center for Environmental Information, Inc.
46 Prince Street
Rochester, New York 14607-1016

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Global Climate Change: Linking Energy, Environment, Economy and Equity

Accommodations:

CEI has reserved a block of hotel rooms at the Washington Plaza Hotel. Special room rate for this conference, guaranteed through November 17, is \$88 per night, single or double occupancy. Hotel reservations should be made directly by contacting the Washington Plaza, 800-424-1140. To obtain the reduced rate, be sure to mention the Center for Environmental Information conference.

Special Airline Rates - United Airlines:

Save on travel by taking advantage of airfare discounts offered by United Airlines to all attendees of this conference: 40 percent off unrestricted coach fares or 5 percent off lowest applicable fares. To make reservations with United Airlines, call 800-521-4041 and refer to Meeting Plus I.D. #519OW.

Note on Duplicates:

Use of multiple mailing lists from various sources makes elimination of duplicates impossible. If you receive duplicates of this brochure, please pass them on to colleagues.

Registration Form:

Register me for Global Climate Change: Linking Energy, Environment, Economy and Equity

Name _____	Registration Fee	\$ _____
Address _____	CEU Fee (add \$15)	\$ _____
City/State/Zip _____	Invoicing Fee (add \$15, vouchers only)	\$ _____
Phone _____	TOTAL FEE ENCLOSED	\$ _____
Affiliation _____	_____ Charge to my Mastercard/Visa Account # _____	
Title _____	Signature _____	
Please review Registration Information before completing this form.		Exp. Date _____
Mastercard/Visa registrations may be faxed to CEI at 716-271-0606.		

Purpose:

Production and consumption of energy, which powers human development, is a major cause of environmental stress.

The objective of this conference is to explore alternatives for meeting future global energy demand, in the face of possible large-scale environmental impacts and increasing concerns for equity and cultural integrity.

The conference will identify and examine quantitative data and will analyze distinctions between the theoretically possible and global societal realities. The following questions will be addressed:

- What technologies are available to meet the multiple requirements of enhancing economic development, improving quality of life and sustaining the environment?
- How far can energy efficiency, conservation, and renewable energy sources take us toward this goal?
- How sensitive are cost projections to underlying assumptions?
- What are the costs of overcoming existing barriers to change-in government policy, corporate culture and practice, and individual lifestyle?
- How do we account for energy damage costs not normally paid in the marketplace?
- How is our approach informed in ethics and values?

Who Should Attend:

- Environmentalists
- Government Agency Staff
- Utility Representatives
- Research Administrators
- Legislative Staff
- Economists
- Industry Representatives
- Scientists
- Educators
- Consultants
- Trade Association Representatives

Conference Steering Committee:

Priscilla Auchincloss, Congressional Fellow,
U.S. House of Representatives

Jan Beyer, Senior Staff Scientist, National Audubon Society

Alex Cristofaro, Director, Air & Energy Policy Division,
U.S. Environmental Protection Agency

Roger C. Dower, Director, Climate, Energy and Pollution
Program, World Resources Institute

Michael P. Farrell, Section Head, Earth Systems,
Oak Ridge National Laboratory

T.J. Glauber, Director, Energy and Climate Change, World
Wildlife Fund, The Conservation Foundation

Marcel Halberstadt, Director, Environmental Department, Motor
Vehicle Manufacturers Association of the United States, Inc.

Nelson E. Hay, Chief Economist and Director,
Policy Analysis, American Gas Association

Richard Richels, Senior Program Manager, Environmental Risk
Analysis, Electric Power Research Institute

James C. White, Center for the Environment,
Cornell University

Richard Wilson, Director, Northeastern Regional Center for
Global Environmental Change, Lyman Laboratory of
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Oak Ridge National Laboratory,
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E.I. DuPont de Nemours & Co., Inc.
Motor Vehicle Manufacturers Assoc. of the U.S., Inc.
Ontario Ministry of the Environment
World Wildlife Fund - The Conservation Foundation

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Climate Institute
Environment Canada
Environmental and Energy Study Institute
Friends of the Earth/Environmental Policy Institute
Izaak Walton League
National Audubon Society
National Institute for Emerging Technology
National Resources Defense Council
National Science Foundation
National Wildlife Federation
Quebec Ministere de l'Environnement
Union of Concerned Scientists
United Nations Environment Programme
U.S. Council for Energy Awareness
U.S. Department of Agriculture/Economic Research Service
World Meteorological Organization

**December 5-6, 1991,
Washington Plaza Hotel,
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**Eighth Annual Conference
of the Air Resources
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Information, Inc.**



Global Climate Change

Linking

Energy, Environment, Economy and Equity



7:45 a.m.	Registration desk open; Continental Breakfast	Population - Gretchen Kolstrud , U.S. Congress Office of Technology Assessment
8:45	Welcome and Introduction Elizabeth Thorndike , Center for Environmental Information, Inc.	The Public as Decision Maker - Rob Coppock , National Academy of Sciences
9:00	Keynote address RISKING CLIMATE CHANGE - ACTION IN THE FACE OF UNCERTAINTY Noel Brown , Director, Regional Office of North America, United Nations Environment Programme (invited)	5:00 Adjourn
Program - Friday, December 6, 1991		
9:30	Session I: A SUSTAINABLE ENERGY FUTURE - TECHNOLOGICAL OPTIONS FOR CHANGE Supply side: How far can efficiency, conservation and renewables take us in meeting global energy demands? Robert Friedman , U.S. Congress, Office of Technology Assessment	7:45 a.m. Continental Breakfast Session IV: STRATEGIES FOR INTERNATIONAL NEGOTIATIONS Chair - William Nitze , Alliance to Save Energy Status of Framework Convention Talks Daniel Reifsnnyder , U.S. Department of State Richard Stewart , Georgetown University Law Center
10:00	Break	9:45 Break
10:30	Demand side: What are options and barriers to change in engineering, end-use applications and lifestyle? Lee Schipper , Lawrence Berkeley Laboratory	10:15 Session V: THE ETHICS OF LIVING IN A GLOBAL GREENHOUSE Corporate and Personal Responsibility Dale Jamieson , University of Colorado Intergenerational Equity Douglas McLean , University of Maryland, Baltimore County
11:00	Why do cost analyses differ? Model sensitivity to alternative assumptions. Richard Richels , Electric Power Research Institute	11:15 Session VI: EXAMINING THE LINKAGES - WHICH POLICIES WILL WORK? Chair - Milton Russell , University of Tennessee and Oak Ridge National Laboratory A panel of experts representing the perspectives of science, economics, society, U.S. government, international agencies, developing nations and oil producing nations will address the topic. Richard Wilson , Harvard University Roger Dower , World Resources Institute Charles Herrick , National Oceanic and Atmospheric Administration
11:45	Lunch	12:15 p.m. Lunch
12:45 p.m.	Session II: INTEGRATING ENERGY, ECONOMY AND ENVIRONMENTAL CONCERNS Chair - Nelson Hay , American Gas Association "No regrets" Tax Reform Alex Cristofaro , Air & Energy Policy Division, U.S. Environmental Protection Agency Multiple Benefit Environmental Policies Daniel Lashof , Natural Resources Defense Council Market Mechanisms Daniel J. Dudek , Environmental Defense Fund, Inc. Local/Regional Policies - Acting Globally by Thinking Locally Edward Hilsman , Oak Ridge Nat'l. Laboratory	1:15 Session continued U.S. Government (To be announced) International Agencies - (To be announced) Ambassador A.H.S. Ataul Karim , Permanent Mission of Bangladesh to the United States Sheik Zaki Yamani , Centre for Global Energy Studies (invited)
2:45	Break	3:00 SUMMATION - Milton Russell
3:00	Session III: IMPLICATIONS FOR DECISION MAK- ING	3:30 Adjourn

About the Center:

The Center for Environmental Information (CEI) was established in Rochester, New York in 1974 as an answer to the growing dilemma of where to find timely, accurate and comprehensive information on environmental issues. To meet this need for current and comprehensive information, CEI has developed a multi-faceted program of publications, educational programs and information services. It is a private, nonprofit organization funded by membership dues, fees, contracts, grants and contributions.

CEI acts as a catalyst to advance the public agenda toward soundly conceived environmental policies. CEI's communication network provides a link among the scientific community, educators, decision makers and the public, so that informed action follows the free interchange of information and ideas.

Registration Information:

Fee includes registration materials, proceedings, two continental breakfasts, two lunches, and breaks.

Registration Fee:

Early, Regular, \$300	postmarked by November 15, \$225
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Scholarships:

Scholarships are available to a limited number of individuals affiliated with nonprofit organizations and educational institutions. People requesting a scholarship should submit a letter explaining their affiliation, along with the registration form and scholarship fee of \$35 (includes registration materials and breaks; no meals or proceedings). APPLICATIONS MUST BE POSTMARKED BY NOVEMBER 8, 1991. Notification of scholarship award will be made by November 22.

For further information on scholarships, CEI member discounts or multiple registrations, call CEI, 716-271-3550.

Continuing Education Units:

1.2 CEUs will be awarded for satisfactory completion of the program. A \$15 fee for CEU application, processing and award should be added to the registration fee. The CEU is a nationally recognized unit of achievement which may be used as evidence of increased performance capabilities and for job advancement.

Cancellations:

Refunds for cancellations received at the Center by November 22 will be made in full. Cancellations received by December 2 will be charged a \$50 administrative fee. No refunds thereafter. Registrants who fail to attend and do not cancel by the given deadlines are liable for registration fee. Substitutions are allowed.

Confirmation:

Registrations received by November 22 will be confirmed by return mail.

Payment:

Check or voucher must accompany registration, or charge to Mastercard/Visa. A \$15 invoicing fee should be added to the registration fee for voucher use. Make checks payable to Center for Environmental Information.

Please mail the registration form with your payment to:

Center for Environmental Information
46 Prince Street
Rochester, NY 14607-1016

For Information Call:
716-271-3550

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01b. Report	1991 Annual Report, Center for Environmental Information (12 pp.)	1991	(b)(4)	

Collection:

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Subseries: Correspondence Files
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File Location: Invitation: Speeches [1 of 7] [1992]

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(b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
(b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9125043
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: WEATHERS, Marjorie J.: THE WORLD SPACE CONGRESS

646-7508

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/02/91

SUBJECT: RE: A SUBSTITUTE LETTER FOR THE VERSION DATED
11/19/91 WHICH CONTAINED AN ERROR IN THE SALUTATION.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE: 12/15/91
OSTP DUE DATE: 12/15/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
DIRECTOR'S OFFICE

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: THIS LETTER REFERS TO DOCUMENT #9124921.

OSTP RECEIVED: 12/06/91
FILE: -INVITATION-SPEECH

DEPT RECEIVED:

CENTRAL FILES:



THE WORLD SPACE CONGRESS

WASHINGTON, DC • 28 AUGUST - 5 SEPTEMBER 1992

29th Plenary Meeting of the Committee on Space Research • COSPAR
43rd Congress of the International Astronautical Federation • IAF

UNDER THE AUSPICES OF THE US NATIONAL ACADEMY OF SCIENCES, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

November 19, 1991

Dr. D. Allan Bromley
Science Advisor to the President
Director, Office of Science and Technology Policy
Old Executive Office Building #358
Washington, DC 20506

Dear Allan:

You have kindly agreed to help us secure the presence of the President in the Inaugural Ceremony of the World Space Congress, and we are most grateful. Although we know that we are not going to get an answer for several months, we would like to indicate in our third announcement of the Congress that he has been invited and print his photograph, which we will need by December 15. Could we ask you to get us such a photograph?

I would also like to invite you to make some brief remarks at the Inaugural Ceremony and introduce Dr. Boorstin, who will give the keynote address on the philosophy of exploration and discovery. We need by December 15th the following from you:

1. A black and white glossy photograph, head and shoulders, any size.
2. The way you would like to be listed; i.e., your name and title.
3. A short biography.
4. Your preferred address, telephone, and fax.

Again, we are delighted to have your participation.

Sincerely,

Herbert Friedman
Co-Chairman, Joint International
Program Committee

CO-SPONSOR

American Institute of Aeronautics and Astronautics • The Aerospace Center •
370 L'Enfant Promenade, SW • Washington, DC 20024-2518 USA • Te: 202/646-7451 • Fax: 202/646-7508

Aug. 31

THE WHITE HOUSE

WASHINGTON

May 6, 1991

Dear Herb:

Thank you for your letter of April 25 bringing me up to date on International Space Year and the planned World Space Congress.

I believe that the President will very much want to address the Congress. However, because the dates are so far in the future, it would not be effective to send a request to the scheduling office this early. I suggest that we wait until the spring of 1992 and formally ask the President to address the opening plenary session.

I will hold this letter until the spring and would ask that you write again at that time to remind me to seek a commitment for August 31, 1992.

My best wishes,

Sincerely



D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Herbert Friedman
Co-Chairman
World Space Congress
Naval Research Laboratory
Code 4190
Washington, D.C. 20375

THE WHITE HOUSE
WASHINGTON

February 7, 1992

Dear Herb:

I apologize for any misunderstanding that may have occurred regarding my participation in the Inaugural Ceremony of the World Space Congress scheduled for August 28 to September 5, 1992.

Unfortunately I will be out of the country on August 31 and will, of course, be unable to introduce Dr. Boorstin as you had requested.

With regard to your request that the President attend the Inaugural Ceremony, his scheduling office asks that your request be made about three months prior to the event.

I appreciate your thinking of me and hope that your request to the President is successful.

Sincerely yours,



D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Herbert Friedman
Co-Chairman, Joint International
Program Committee
American Institute of Aeronautics and Astronautics
370 L'Enfant Promenade, Southwest
Washington, D.C. 20024

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

DATE: 2-7-92

TO:

ADDRESS:

*Marjorie Weathers
World Space Congress*

TELEPHONE NUMBER:

FAX NUMBER:

646 - 7508

FROM:

Marian Nida

TELEPHONE NUMBER:

456-7116

FAX NUMBER:

(202) 395-3261

NUMBER OF PAGES, INCLUDING COVER SHEET

2

SPECIAL INSTRUCTIONS:

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9124921
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: FRIEDMAN, Herbert: THE WORLD SPACE CONGRESS

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/19/91

SUBJECT: HE REQUESTS A PHOTO OF THE PRESIDENT FOR THEIR
ANNOUNCEMENT OF THE INAUGURAL CEREMONY OF THE WORLD
SPACE CONGRESS. HE ALSO REQUESTS A PHOTO OF DR.
BROMLEY, HIS CORRECT TITLE, A BRIEF BIOGRAPHY, AND
HIS PREFERRED ADDRESS, TELEPHONE, AND FAX.

DIRECTORATE STAFF
ASSIGNED: DIRECTOR'S OFFICE ASSIGNED:

ACTION STAFF
REQUIRED: DIRECT REPLY ACTION:

SENDER'S DUE DATE: 12/15/91
OSTP DUE DATE: 12/15/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS:

P-
OSTP RECEIVED: 11/27/91 DEPT RECEIVED:
FILE: ~~W~~-INVITATION-SPEECH
CENTRAL FILES:

Aug. 31

THE WHITE HOUSE
WASHINGTON

May 6, 1991

Dear Herb:

Thank you for your letter of April 25 bringing me up to date on International Space Year and the planned World Space Congress.

I believe that the President will very much want to address the Congress. However, because the dates are so far in the future, it would not be effective to send a request to the scheduling office this early. I suggest that we wait until the spring of 1992 and formally ask the President to address the opening plenary session.

I will hold this letter until the spring and would ask that you write again at that time to remind me to seek a commitment for August 31, 1992.

My best wishes,

Sincerely



D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Herbert Friedman
Co-Chairman
World Space Congress
Naval Research Laboratory
Code 4190
Washington, D.C. 20375

THE WHITE HOUSE
WASHINGTON

February 7, 1992

Dear Herb:

I apologize for any misunderstanding that may have occurred regarding my participation in the Inaugural Ceremony of the World Space Congress scheduled for August 28 to September 5, 1992.

Unfortunately I will be out of the country on August 31 and will, of course, be unable to introduce Dr. Boorstin as you had requested.

With regard to your request that the President attend the Inaugural Ceremony, his scheduling office asks that your request be made about three months prior to the event.

I appreciate your thinking of me and hope that your request to the President is successful.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'D. Allan Bromley', with a long horizontal flourish extending to the right.

D. Allan Bromley
The Assistant to the President
for
Science and Technology

Dr. Herbert Friedman
Co-Chairman, Joint International
Program Committee
American Institute of Aeronautics and Astronautics
370 L'Enfant Promenade, Southwest
Washington, D.C. 20024



THE WORLD SPACE CONGRESS

WASHINGTON, DC • 28 AUGUST - 5 SEPTEMBER 1992

29th Plenary Meeting of the Committee on Space Research • COSPAR
43rd Congress of the International Astronautical Federation • IAF

RECEIVED

UNDER THE AUSPICES OF THE US NATIONAL ACADEMY OF SCIENCES, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AND AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

01/10/27 A10:56

MAIL ROOM

November 19, 1991

Dr. D. Allan Bromley
Science Advisor to the President
Director, Office of Science and Technology Policy
Old Executive Office Building #358
Washington, DC 20506

Dear Dr. Allan:

You have kindly agreed to help us secure the presence of the President in the Inaugural Ceremony of the World Space Congress, and we are most grateful. Although we know that we are not going to get an answer for several months, we would like to indicate in our third announcement of the Congress that he has been invited and print his photograph, which we will need by December 15. Could we ask you to get us such a photograph?

I would also like to invite you to make some brief remarks at the Inaugural Ceremony and introduce Dr. Boorstin, who will give the keynote address on the philosophy of exploration and discovery. We need by December 15th the following from you:

1. A black and white glossy photograph, head and shoulders, any size.
2. The way you would like to be listed; i.e., your name and title.
3. A short biography.
4. Your preferred address, telephone, and fax.

Again, we are delighted to have your participation.

Sincerely,

Herb

Herbert Friedman
Co-Chairman, Joint International
Program Committee

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9203067

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: BISHOP, William: EPSCOR

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/02/92

SUBJECT: INFORMATION ON DR. BROMLEY'S TRIP TO SPEAK AT THEIR
EVENT ON 10/14/92-10/15/92.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 10/07/92
FILE: P-INVITATION-SPEECH

DEPT RECEIVED:

CENTRAL FILES:



University and Community College System of Nevada

Mailing Address:

Desert Research Institute

P.O. Box 19040

Las Vegas, Nevada 89132-0040

(702) 895-0408

Fax: (702) 895-0496

October 2, 1992

D. Allan Bromley
President's Science Advisor
and Director
Office of Science & Technology Policy
Old Executive Office Building, Room 358
17th Street and Pennsylvania NW
Washington, D.C. 20506

Enclosed is the current agenda for the Eighth Annual EPSCoR Conference hosted by the University and Community College System of Nevada in Las Vegas. As this conference is being held in Las Vegas in October, remember that the temperature will be approximately 80° during the day and cooler in the evening. So dress should be casual and comfortable. Also, parking on the UNLV campus is very limited. Parking spaces are available at the Thomas & Mack Center but are not in close proximity to where the conference is being held. Buses will be provided from the hotel to the conference meeting place. Enclosed is a map of the campus. If you have any special dietary requirements, please let us know.

We need an abstract of your speech (on 3 1/2" disk if possible), a short biography, and a xerox copy of your airline ticket. Enclosed is a registration form for the conference. If you have not already done so, please complete and send in as soon as possible. Please include your social security number for IRS purposes.

Your reservations have been confirmed at the Emerald Springs Inn for October 14-15. Also, if you have any special needs, e.g., overhead projector, outlets, etc., please let us know.

I look forward to meeting you in October and to a successful and productive conference. Please send all requested information to

Lisa Zumpft, Assistant to the Director
DOE - EPSCoR
University of Nevada, Las Vegas
4505 Maryland Parkway
Las Vegas, Nevada 89154-1046
(702) 597-4790
(702) 597-4791 FAX

or

John Gardner
Programs Coordinator
Desert Research Institute
P.O. Box 19040
Las Vegas, Nevada 89193-0040
(702) 895-0408
(702) 895-0496 FAX

Sincerely,

William P. Bishop
Vice President for Research
Desert Research Institute
Conference Principal Investigator

Enclosures: Conference Agenda (EPSCoR & NISSET)

Map of UNLV

ESI Brochure

Honoree Registration Form

Experimental Program to Stimulate Competitive Research

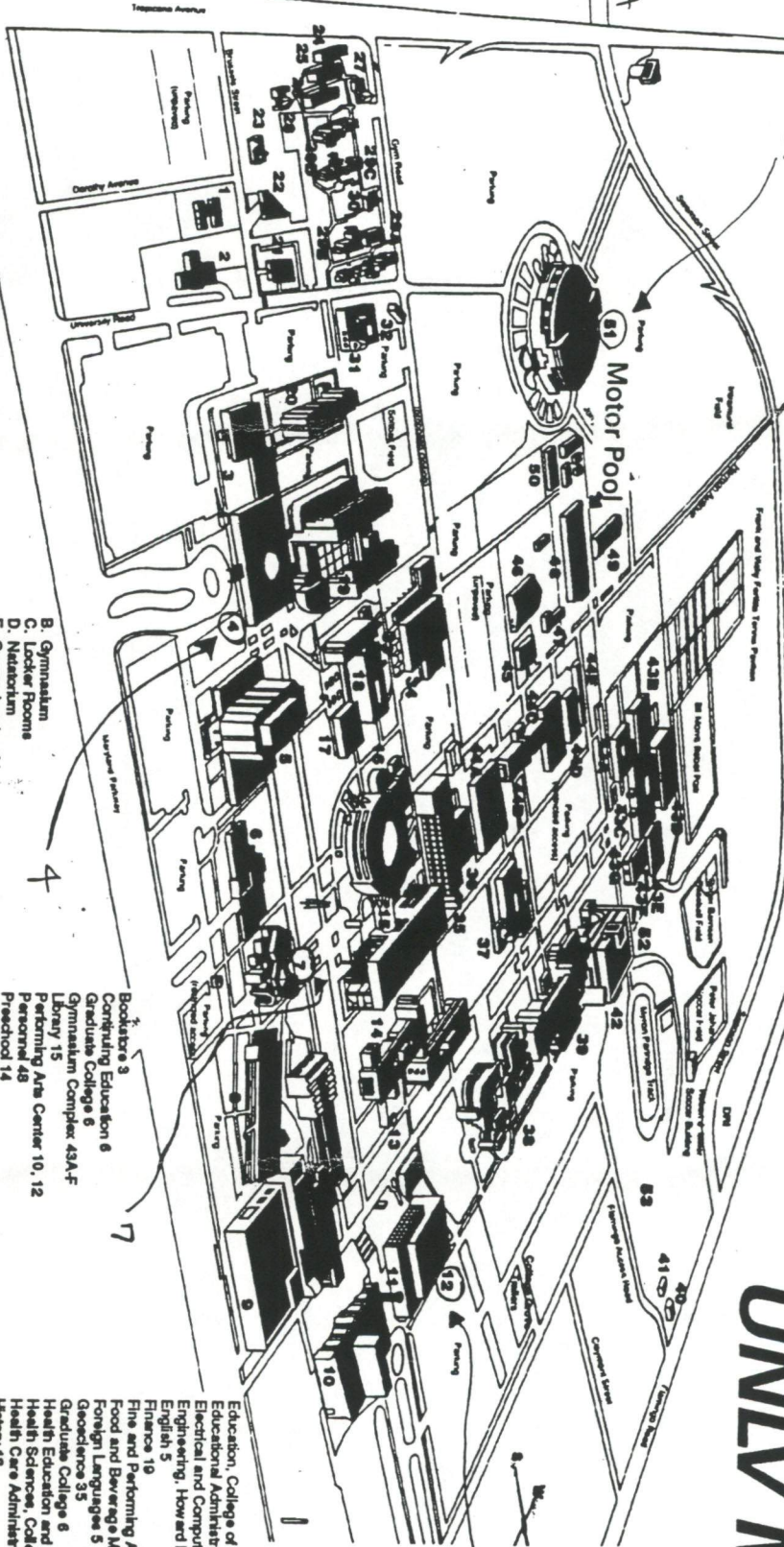
To Airport
Paradise

From Airport
Summison

Emerald Springs
Inn

Howard
Johnsons

UNLV MAP



NUMERICAL LEGEND

1. Architecture Annex
2. Boy Scouts of America
3. UNLV Bookstore
4. Donald C. Meyer Student Union (MSU)
5. Fire Dugan Humanities (FDH)
6. Maude Fessler Hall (FRA)
7. Richard T. Allen Center (TAC)
8. Archie C. Grant Hall (GHA)
9. Alta Ham Fine Arts (HFA)
10. Judy Boyler Theater (BT)
11. The Flashlight
12. Arden W. Ham Concert Hall (HCH)
13. Herbert H. Hendrix Education Auditorium (HEA)
14. William D. Carlson Education (CEB)
15. James R. Dickson Library (DL)
16. UNS Computing Services
17. John S. Wright Hall (WHR)
18. Frank and Estelle Beaman Hall (BEH)
19. Tompkins Residence Hall (TRH)
20. Tompkins Residence Hall (TRH)
21. LD's Institute of Religion Student Center
22. University Center for Religion and Life
23. Housewife Building
24. Claudine Williams Residence Hall
25. William S. Boyd Residence Hall
26. Kirby Rodman Residence Hall
27. Residential Life Housing Administration Building
28. Olyn Road South Resident Services Building
29. Olyn Road Resident Life (RES)
30. Eugene Warner Resident Life (RES)
31. Dining Commons
32. Claude I. Howard Student Health Services (SHS)
33. Desert Landscape Garden
34. Marjorie Barrick Museum of Natural History (MSAH)
35. Harry Reid Environmental Research Center
36. Technology (TEC)
37. Chemistry (CHE)
38. Thomas T. Bauman Engineering Complex (TBEC)
39. Juana G. White Life Sciences (WLH)
40. William D. Taylor Hall (TAY)
41. Limnological Field Laboratory
42. EPA Modular Office Complex-LEASCO
43. Paul C. McDermott Physical Education (APE)
44. A. Office

45. Gymnasium
46. Locker Rooms
47. Natatorium
48. Gymnasium (north)
49. Recreational Courts
50. Sports Injury Center
51. Environmental Protection Agency
52. Chemistry Laboratory
53. Executive Center
54. Monitoring Systems Laboratory
55. Quality Assurance Laboratory
56. Exposure Assessment Annex
57. University Hall
58. Publication Services
59. Claude I. Howard Public Safety (PSS)
60. Herman Westall Business Services (BSB)
61. Motor Pool
62. Facilities Management Services (FMS)
63. Thomas and Meek Center (TMC)
64. Health Science Building
65. Greek Housing

66. Bookstore 3
67. Continuing Education 6
68. Graduate College 6
69. Gymnasium Complex 43A-F
70. Library 15
71. Performing Arts Center 10, 12
72. Personnel 48
73. Preschool 14
74. Public Safety (Campus Police) 47
75. Registrar 6
76. Residence Halls 20, 24, 25, 26, 29A-D
77. Student Services 5
78. Student Union, Student Services 4
79. Summer Term Office 6
80. Thomas and Meek Center 51

81. Accounting 19
82. Anthropology 18
83. Architecture 23
84. Business and Economics, College of 19
85. Biological Sciences 39
86. Chemistry 37
87. Civil and Environmental Engineering 38
88. Communication Studies 5
89. Computer Science 38
90. Counseling and Educational Psychology 14
91. Criminal Justice 5
92. Dance Arts 9
93. Economics 19
94. Education, College of 14
95. Educational Administration 14
96. Electrical and Computer Engineering 38
97. Engineering, Howard R. Hughes, College of 38
98. English 5
99. Finance 10
100. Fine and Performing Arts, College of 9
101. Food and Beverage Management 19
102. Foreign Languages 5
103. Geosciences 35
104. Graduate College 6
105. Health Education and Sports Injury Management 43
106. Health Sciences, College of 32
107. Health Care Administration 32
108. History 18
109. Hotel Administration, William F. Herrin, College of 19
110. Human Performance and Development 43
111. Instructional and Curricular Studies 14
112. Kinesiology 43
113. Liberal Arts, College of 18
114. Management 19
115. Marketing 19
116. Mathematical Sciences 14
117. Mechanical Engineering 38
118. Music 9
119. Nursing 52
120. Philosophy 5
121. Physical Therapy 52
122. Physics 37
123. Political Science 18
124. Psychology 18
125. Radiological Sciences 52
126. Science and Mathematics, College of 37
127. Social Work 5
128. Sociology 5
129. Special Education 14
130. Sports and Leisure Studies 43
131. Theatre Arts 10
132. Tourism and Convention Administration 19

**EIGHTH ANNUAL EPSCOR CONFERENCE
LAS VEGAS, NEVADA
OCTOBER 14 – 16, 1992**

HONOREE PREREGISTRATION FORM

NAME: _____
(Mr., Mrs., First Name MI Last Name
Ms., Dr.)

TITLE: _____

ORGANIZATION: _____

DEPARTMENT: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE: _____ FAX: _____

Please mark the meal(s) your guest will attend and enclose a check for the total amount.

Additional Guest for Meals

October 14 – Buffet Dinner – \$15.00 _____

October 15 – Lunch – \$15.00 _____

October 15 – Dinner – \$25.00 _____

Name of Guest _____

PLEASE COMPLETE THIS FORM AND RETURN IT (for guest meals make checks payable to Board of Regents, UCCSN) TO:

Lisa Zumpft, Assistant to the Director
DOE – EPSCoR
University of Nevada, Las Vegas
4505 Maryland Parkway
Las Vegas, Nevada 89154-1046

Attn: Eighth Annual EPSCoR Conference

FAX: _____ MAIL: ☒

OSTP #: 920 3067

Date of Correspondence: 10/2

Date of Receipt of Correspondence: 10/7

From: Wm P. Bishop

Affiliation: EPSCOR

Univ + Community College System of Nevada
LAS Vegas, NV

Subject: Information on DAB's trip to speak at
event, Oct 14-15, 1992

Action: ☒
FYI: _____

Assign to: _____

Due Date: _____

Copies to: DAB

CONFERENCE AGENDA

“Changing the Face of Science, Engineering & Math:
Systemic Reform of the Academic R&D Enterprise.”

Wednesday
OCTOBER 14, 1992

- | | |
|--------------|---|
| 12:00 | Buses pickup from hotels to UNLV, Artemis W. Ham Concert Hall (HCH) |
| 10:00 – 2:00 | Poster Session setup, NCH Lobby and Registration, HCH Lobby |
| 2:00 – 5:00 | Science in the EPSCoR States (invited papers on selected topics of high science merit), HCH Auditorium |
| | Moderator: David Lightner |
| | Speakers: Judith Van Houten, VT |
| | Oscar Moreno, PR |
| | Bill Hisock, MT |
| | Lee Williams, OK |
| | Robert Lodder, KY |
| 2:00 – 5:00 | Assistants' Hands-on Work Center with Quantum (Green Room) |
| 5:30 – 6:00 | Program Assessment Meeting for Project Directors (Green Room) |
| 5:30 – 8:00 | Buffet Dinner and Scientific Poster Session (informal dinner with scientists to discuss EPSCoR states' programs), HCH Lobby |
| 8:15 | Buses to hotels |

**Thursday
OCTOBER 15, 1992**

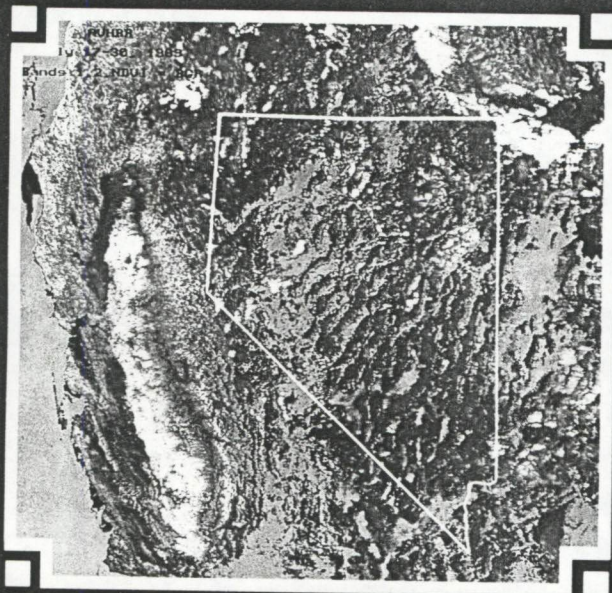
Thursday – October 15

7:45	Buses to UNLV
8:00	Continental Breakfast
9:00	Formal Welcome – Robert Maxson, President, UNLV, HCH Auditorium
9:10	Governor Miller
9:15 – 12:00	National Science & Technology Policy Setting (the impacts upon research universities and their government relationships from an economic, scientific and technological point of view)
9:15–10:15	Keynote Speakers: Dr. D. Alan Bromley Science Advisor to President
	Panel Moderator: I. Feller (Penn State)
	Speakers: Michael Schrage (LA Times) Future R&D Opportunities
10:15–11:00	Break
11:00–12:00	Continued
	Lead Discussants: Senator Dick Hall
12:00 – 1:30	Lunch with a TBA Speaker, Alumni Building Grand Hall
1:30 – 3:30	Departmental and Institutional Development (leaders of several major new research laboratories will describe the inception, development and nurturing of their programs), HCH Auditorium
	Panel Moderator: W.A. Sibley (UAB)
	Speakers: Jack Crow (Florida State) – FSU Magnet Lab Richard Powell (Univ. of AZ) Arizona Optical Sciences Oren Anderson Eloise Clark
	Lead Discussants:
3:30 – 4:00	Break
4:00 – 5:00	Department & Institutional Development (Continued)
5:00	Buses to the Thomas & Mack Center
5:00	Reception
6:00 – 8:30	Dinner (Thomas & Mack Center)
8:45	Buses to hotels

Friday
OCTOBER 16, 1992

7:45	Buses to UNLV
8:00	Continental Breakfast
8:30 – 10:00	University/Industry Partnerships: The Biotechnology Example (using biotechnology as an example, a panel will explore the development of disciplinary interfaces in a rapidly expanding field), HCH Auditorium
	Moderator: Fred Eiserling – Office of the Dean of Life Science – UCLA Dr. Richard Burgess – Director, Biotechnology Center of the University of Wisconsin, Madison Dr. Gary Wilcox – Xoma Dr. Ken Hunter, Vice President for Research, University of Nevada
	Lead Discussants:
10:00 – 10:15	Break
10:15 – 11:00	Lead Discussants (continued)
11:00 – 11:30	Discussion, Closing Speaker, Closing Remarks
12:00	Buses to Hotels
12:00 – 1:30	Lunch for Project Directors – Assessment Meeting – Breakout Session (Moyer Student Union – Fireside Lounge)
1:30 – 3:00	Agency Representatives Introductions from DOE, NIH, NASA, EPA, DOD, USDA, HCH Lobby
1:30 – 3:00	Grants and Contracts Management, HCH Auditorium
3:30	Buses to Hotels

NEVADA INDUSTRY, SCIENCE, ENGINEERING, AND TECHNOLOGY ORGANIZATION



*"Excellence in every area in which
we choose to compete"*

1 9 9 2 NISET CONFERENCE

ADVANCED TECHNOLOGY IN
NEVADA'S ECONOMIC FUTURE:

ISSUES AND CHALLENGES FOR THE
NINETIES AND BEYOND

Thursday, October 15, 1992
University of Nevada, Las Vegas

LAS VEGAS, NEVADA



"The art of pleasing requires only the desire."
— Lord Chesterfield

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9203063

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: CHISOLM, Barbara: THE FORUM FOR WORLD AFFAIRS

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/30/92

SUBJECT: A THANK YOU FOR SPEAKING AT THEIR EVENT AND SHE
ENCLOSES THEIR ANNUAL REPORT.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
Steve Olson

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS:

OSTP RECEIVED: 10/07/92
FILE: P-INVITATION-SPEECH

DEPT RECEIVED:

CENTRAL FILES:

FAX: _____ MAIL: ☒

OSTP #: 920 3063

Date of Correspondence: 9/30/92

Date of Receipt of Correspondence: 10/7/92

From: Barbara Chisolm

Affiliation: Ex Director

The Forum for World Affairs

Subject: Thank you for speaking and ^{enclosure} ~~regrets~~
the Forum's annual report

Action:
FYI: ☒

Assign to: _____

Due Date: _____

Copies to: DAB, Steve Olson

Board of Directors

Co-Chairmen

Kempton Dunn
William F. Ludington
Vice Chairmen
Robert G. Connochie
Kay J. Maxwell
Thomas L. McLane
Richard H. Nolte
Hudson G. Stoddard
Secretary
William R. Lynch
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Joseph F. Condon
Charles T. Connell
Jan V. Dauman
Edward B. Fiske
Charles B. Heck
Harry L. Kavetas
Mitchell Krauss
Donald E. Marquardt
Joseph A. Mehan
Helen Maguire Muller
Eric K. Petschek
Marianne Pollak
Daniel A. Sharp
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Wendell M. Smith
Nancy Hays Teeters
J. Fred Weintz, Jr.

Executive Director
Barbara Wille Chisolm

**Corporate Members
and Hosts**

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Keyes Fibre Corp.
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Pechiney Corporation
PepsiCo, Inc.
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Reader's Digest
Texaco, Incorporated
UST
Xerox Corporation



RECEIVED

RECEIVED

92 OCT 7

PI2

92 SEP 6

PI2: 44

OSTP
MAIL ROOM

OSTP
MAIL ROOM

September 30, 1992

Dr. Bromley

Dear Forum Speaker:

On behalf on The Board of Directors of The Forum, may I thank you again for being one of our eminent speakers this past season. Please note that your name appears on the 1991-1992 program listing in our Annual Report, year ended June 30, 1992.

We appreciate your significant contribution and hope that you will be able to return as a speaker in the near future.

With best wishes,

Sincerely,

Barbara

Barbara W. Chisolm
Executive Director

Your address was one of the highlights of our season. Delighted that you could be here - returning to your old 'neighborhood.'

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9202882

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: LUTZ, Jeffrey: AMERICAN EMBASSY, LONDON

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/25/92

SUBJECT: HE IS FORWARDING A COPY OF THE JOURNAL OF THE
FOUNDATION FOR SCIENCE AND TECHNOLOGY.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS:

OSTP RECEIVED: 09/25/92
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2882
FROM: The Office of the Counselor for
Scientific and Technological Affairs
American Embassy London
(Box 38, FPO New York, NY 09509)

Dr. Bromley,

I am pleased to forward a
copy of the Journal of the
Foundation for Science and
Technology. Your speech of
12 March at the Royal Society
is highlighted on pages 3-8.

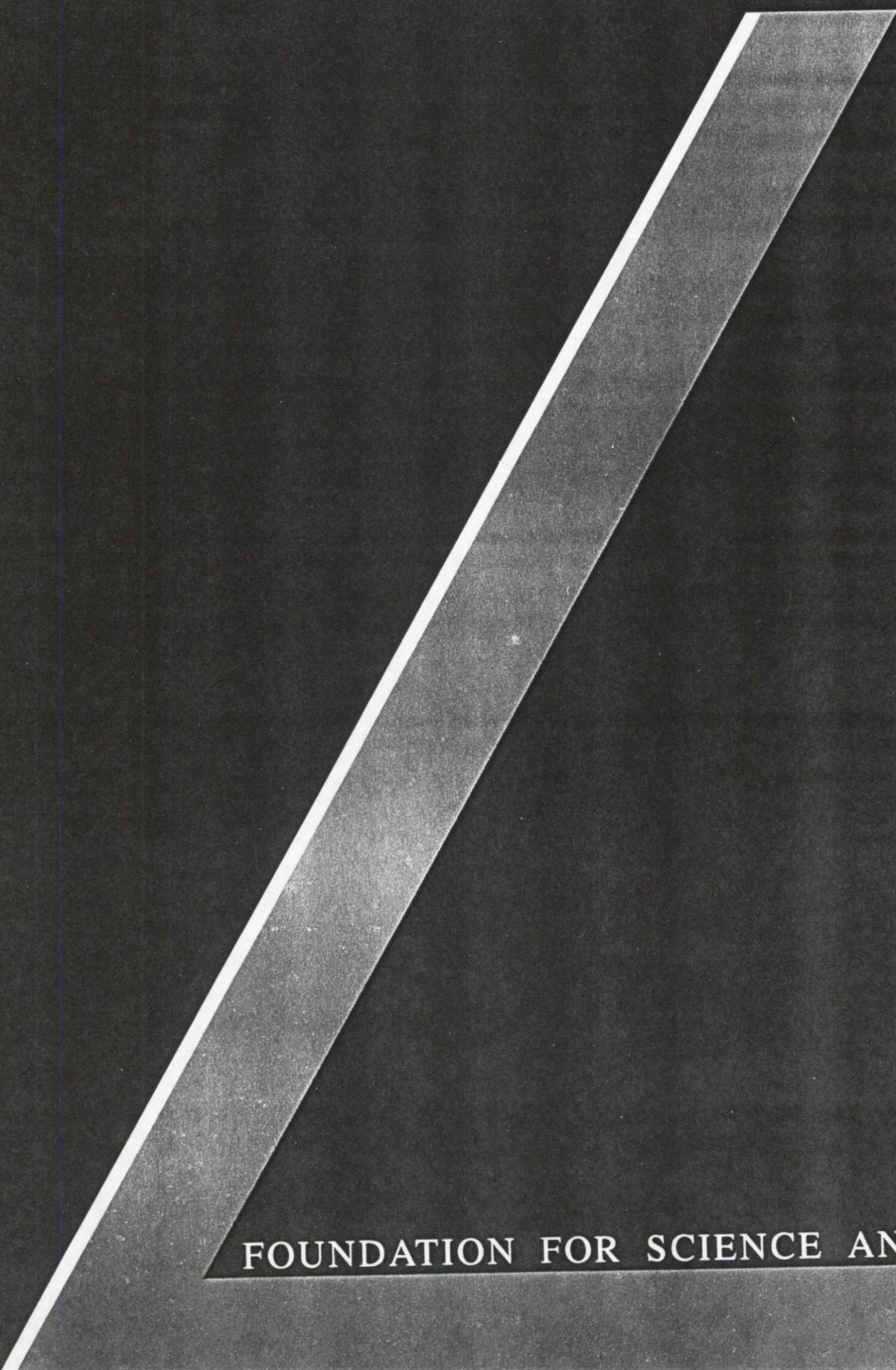
Best regards,

Jeff Lutz

TECHNOLOGY INNOVATION AND SOCIETY

Published Quarterly for the Information of Subscribers

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FOUNDATION FOR SCIENCE AND TECHNOLOGY

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9202906

ORIGINATOR: 02

SPEECH: YES NO

FROM: BATEMAN, Herbert: U.S. HOUSE OF REPRESENTATIVES

DATE OF EVENT: 10/20/92

THRU:

TENTATIVE DATES:

LOCATION OF EVENT: NEWPORT NEWS, VA

TIME OF EVENT:

SUBJECT: AN INVITATION TO ADDRESS NEWTECH '92.

RSVP: 10/02/92

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: PATRICK WHITE

REMARKS:

DATE OF LETTER: 09/16/92

DATE RECEIVED: 09/28/92

FILE: P-INVITATION-SPEECH

per comm. w/ DAB
Mr. Bateman's office was notified RPB by 9.28.92 that DAB was not available.

HERBERT H. BATEMAN

1ST DISTRICT, VIRGINIA

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Congress of the United States

House of Representatives

Washington, DC 20515-4601 September 16, 1992

Honorable D. Allan Bromley
Assistant To The President
For Science and Technology
Old Executive Office Building
Washington, DC 20506

Dear Mr. Bromley:

I am writing to invite you to address NewTech 92, my ninth annual symposium on current developments in science and technology. This conference will be held on Tuesday, October 20, at the auditorium of the Continuous Electron Beam Accelerator Facility (CEBAF) in Newport News, Virginia. I believe you may be interested in seeing the enormous progress that has been made at CEBAF since you last visited the research facility.

If you are able to take part, you may wish to present an overview of national scientific and technological policy issues, but I am certain that any topic you choose will be of interest to our forum. Your remarks will be of tremendous significance in my congressional district, which is an increasingly important high technology center and home to two NASA installations, Langley Research Center and the Flight Facility at Wallops Island.

Other speakers whom I have invited to the conference will be addressing economic conversion issues, global warming (a NASA presentation), free electron laser technology and other subjects of particular interest to the scientific/technological community and related industries.

My NewTech forums have consistently drawn good turnouts and a roster of distinguished speakers, including past NASA administrators, cabinet members and the science advisor to former President Reagan. It is my earnest hope that you will be able to join us for NewTech 92. Please let me know at your earliest convenience.

With kind regards, I am

Sincerely yours,

Herbert H. Bateman
Member of Congress

HHB/mmd

FAX COVER SHEET

from the office of:

CONGRESSMAN HERBERT H. BATEMAN
FIRST DISTRICT OF VIRGINIATO: Hon. D. Allan Bromley
FAX NUMBER: (202) 456-7116FROM: Rep. Bateman / JIB
OFFICE NUMBER: (202) 225-4261
OFFICE FAX NUMBER: (202) 225-4382THIS FAX CONTAINS 1 PAGES, EXCLUDING THE COVER SHEETIF YOU DID NOT RECEIVE ALL OF THIS FAX TRANSMISSION,
PLEASE CALL (202) 225-4261

Rep. Bateman will call concerning
this invitation in a few days.

Jack Brooks
AA

9202812

ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: RIEMER, Robert L.: NATIONAL RESEARCH COUNCIL

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/14/92

SUBJECT: HE IS FORWARDING A COPY OF THEIR TRANSCRIPTS OF DR.
BROMLEY'S PRESENTATION AT THE SOLID STATE SCIENCES
FORUM. HE IS ASKING FOR ANY COMMENTS THAT DR.
BROMLEY MAY HAVE.

DIRECTORATE STAFF
ASSIGNED: Steve Olson ASSIGNED:

ACTION STAFF
REQUIRED: REVIEW FOR LAB ACTION: Olson

SENDER'S DUE DATE: 09/22/92
OSTP DUE DATE: 09/22/92 STAFF DUE DATE 9/29/92
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #: CONTACT PERSON: Olson
REMARKS: PHONE: EXT: 6143

Pages edited and returned to sender.
Steve Olson

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2812

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Commission on Physical Sciences, Mathematics, and Applications
National Research Council
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DATE: September 14, 1992 10:55 AM NO. OF PAGES (including cover): 8

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TELEFAX NUMBER: 395-3719

SENT TO: Allan Bromley

FROM: Robert Riemer

COMMITTEE OR ACTIVITY: Forum Proceedings

NAME OF SENDER: Anne Simmons

MESSAGE:

CB
Assign to Steve Olson. Action, due 9/22

info copy to DAB

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BOARD ON
PHYSICS AND ASTRONOMY

(202) 334-3520
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September 11, 1992

D. Allan Bromley
Director, Office of Science and Technology Policy
Room 360, Old Executive Office Building
17th and Pennsylvania Ave., N.W.
Washington, DC 20500

Dear Dr. Bromley:

Enclosed for your information is an edited transcript of the presentation that you made at the Solid State Sciences Forum held at the National Academy of Sciences on February 27, 1991. The transcript is included in the *Proceedings* of the forum, which is expected to be released in October 1992.

Please send me any comments that you may have no later than September 22, 1992. I can be reached at the above numbers.

Thanks,



Robert L. Riemer

cc: Donald C. Shapero
Ronald D. Taylor

IV. Keynote Address: Federal Advanced Materials Program

D. Allan Bromley, Science Advisor to the President

Good morning ladies and gentlemen. It's a pleasure to be here. It's always a pleasure to follow Sen. Gore. As you know, he is chairman of the subcommittee that holds confirmation hearings for all of us at OSTP, and, although sometimes those hearings get a little heated, nonetheless, Sen. Gore has for a very long time been a very strong and effective supporter of science and technology in this country. Certainly this is the case in the area we're discussing this morning—materials science and engineering—and I would like to really start out by expressing to our Chairman this morning, and to Praveen Chaudhari and Merton Flemings, my thanks for the superb job that they have been doing in pulling together this community. I think that working together with them, we can make a very substantial difference in materials science and engineering in the year that lies ahead.

From my point of view, there's little question that materials science and engineering has become one of the most exciting, dynamic areas in modern science, modern technology. In a very real sense it seems to me that we have entered for the first time the era of tailored materials. By now, probably everyone has seen the famous IBM logo spelled out with individual xenon atoms, and it's worth remembering that that would have been considered flatly impossible even a few years ago, and it is a measure of the kind of progress that we're really making.

These new capabilities allow us to fabricate new solids, surfaces with properties that in the past we were only able to imagine, to produce solid superlattices using molecular-beam epitaxy, now well established, and for the first time to actually fabricate the quantum wells that used to occupy the first chapter of quantum mechanics textbooks, and actually measure what happens to an electron that finds itself in one of those wells. Diamond films have shown themselves capable of really remarkable performance in a wide variety of applications, from machine tools to electronics. Ion-beam techniques of one sort or another are being used to produce corrosion- and wear-resistant surfaces as well as catalytically active surfaces. And the work of our Chairman, for example, on using ion-beam treatment of prosthetic devices for use in joint replacement has made it possible for literally hundreds of thousands of people worldwide to have joints that were not functioning as they should have functioned, replaced when the need arose rather than as in earlier times, when you either had to wait until you were seventy to have the joint replaced, or you simply had to face up to the fact that you were going to have to have it replaced several times. That is simply no longer the case, and we cannot forget what a tremendous impact materials science and our ability to manipulate surfaces and materials have had on fields all the way from the most applied technology through medicine to our understanding of some of the most fundamental concepts in physics.

But now, despite these developments, many of you have already heard me say that it is my impression that materials science and engineering for a long time, for far too long, has been something of an orphan science here in Washington, D.C., and an orphan science in many ways in our universities. Because of its breadth of coverage, its breadth of application, your field doesn't fit comfortably in the traditional academic departments any more than it fits comfortably into the agencies here in Washington. And so it is important to recognize that materials science plays an important role in every one of the federal agencies all the way from the Department of Defense to the National Institutes of Health. The time has come when we have to focus attention on this field and, as has happened already with many of our foreign competitors, make an attempt to get some coherence in our approach so that we can take advantage of the leadership role that we still enjoy in many areas of science and technology that relate to materials.

The materials science and engineering survey report that I've mentioned earlier has really been a watershed document in this whole field. *Materials Science and Engineering for the 1990s: Maintaining Competitiveness*

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in the Age of Materials [National Academy Press, Washington, D.C., 1989] is an excellent title. It's an appropriate title. It's proven to be a landmark document in a number of ways. First of all, it has provided a focus that has in a very real sense unified this field in a way that wasn't present before. The identification of the critical areas of synthesis and processing has been very important in terms of prioritizing our activities and in terms of pulling together your community behind those priorities. One of the things that is very obvious is that this area of synthesis and processing is one where we have a significant gap in our capability. I use this example frequently because while we still retain international leadership in the development of new materials, ceramics, composites—you name it—and while we still retain international leadership in our ability to characterize an adequate sample of materials (we can tell you about its structure, its wear and corrosion resistance, its mechanical characteristics, its electrical characteristics, and so on), all too frequently, we find that in order to get an adequate sample of the new materials that we have developed so that we can characterize it, we go to Japan, where we have what we would term technicians or supertechnicians who have great prestige, have appropriate reward structures, and who have spent their careers learning to do a very limited number of things, but to do them superbly well. And I will come back to this question of our need for similar people in the United States in just a few moments.

Now, I would have to say at this point that the federal government has just begun to respond to the shortcomings in our national activities that are identified in the MS&E survey report. In the fiscal year '92 budget that President Bush just submitted to the Congress you will all have noted, for example, that we have put within the National Science Foundation a new \$84 million initiative that emphasizes the whole question of synthesis and processing. The initiative is intended to begin a process of strengthening the competitive position of the United States in developing the next generation of materials and new methods for processing those materials. And in this first year of the program it will extend across three directorates of the National Science Foundation, focusing on electronic and photonic materials and on biomaterials.

There are several other special initiatives in the '92 budget that are going to have an impact on materials science and engineering. One of those is the initiative that was being discussed, when I arrived, by Sen. Gore on high-performance computing and communications. This was one of the three special initiatives—Presidential initiatives—in the '92 budget that was constructed on an interagency basis under the aegis of the Federal Coordinating Council for Science, Engineering, and Technology, the group that has the unfortunate acronym FCCSET. This group has been reorganized in this past year and now comprises the cabinet secretaries and the heads of the independent agencies responsible for science and technology in the federal government. This is a very important change, because it means now that decisions made within FCCSET remain throughout the entire budget process and are not disowned by higher authorities somewhere in the later stages of budget crunch.

As a reflection of the fact that we were able to integrate the programs of the various agencies—eight in fact—in high-performance computing, we were able to convince not only the Office of Management and Budget, but also the President, to request a 30 percent increase in the funding of this activity, in a year when we have a very stringent budget.

Our goals here are straightforward. We want to double the funding from the federal government in this area over the next four years. A lot of that funding will go to materials science and engineering, because that plays an absolutely critical role in this field, and we want to increase by factors between 100 and 1000 the speed, the memory capacity, and the information transfer rates that are available not only in the research environment but also in the network Sen. Gore was talking about.

Another new initiative that is going to affect materials science and technology, and again one that was developed under the FCCSET, is on education and human resources. For the first time in the history of the federal government we have been able to put together an inventory of what the federal government does in science and mathematics education. This was a committee activity led by the secretary of energy, the deputy

secretary of education, and the director of the Education Directorate of the NSF, who were the chairman and the co-vice chairmen of this activity, respectively. Again, we were able to put together a coherent national program. The budget calls for a 13 percent increase overall and a 28 percent increase in the precollege area, which has been identified by the committee as the area of greatest need, and within that area the improvement of teacher competence is the specific area that will receive the lion's share of this increased funding.

I think that in general we have to recognize that the goals that have been established by the President and the governors, particularly in science and mathematics, are very ambitious goals. The specific goal, which I think you will all agree is something of a stretch goal, is one that says that by the year 2000, American students in science and mathematics will be second to none in the world. Given the distance behind scratch from which we are starting, this is a very ambitious goal, but nonetheless is one that I believe that we can meet.

There are other areas of importance that I should emphasize. I mentioned the question of the technical people, the people who take care of our production lines, the people who operate our high-technology systems, and, let me emphasize, the people who have been operating our high-technology military systems that have served us so well in recent days and weeks in Desert Storm. We in this country, unfortunately, have not treated that particular group (it's sort of a forgotten middle in the educational system) particularly well. The assumption has been frequently made, and openly made, that such persons either fell or were kicked off the academic ladder prematurely. If they were really all that good they would have gone on to higher degrees. And we have forgotten how much we depend on people who may not be at the top professional level in a particular area, but nonetheless have developed high-level personal skills. I believe that we have to recognize the need to train many more people at that level, to reward them more effectively, and to give them the recognition that is their due in this country or we will not succeed as a competitive player in the international marketplace. It is important to recognize, for example, that only 2.4 percent of federal support in this country goes to two-year colleges, which is where most of these people, in fact, receive their training.

And let me also comment here on a somewhat related issue—it's one that you all have heard about—and that is the plight, particularly of the young person in the academic structure, in terms of receiving adequate funding for research activities, the plight of the individual investigator and of the small groups of investigators. It is sometimes cast as big science versus little science, and that is a specious distinction. At the great many large facilities, particularly in your field at the National Light Source, for example, most of the work is done by single professors with a post-doctoral associate and a few graduate students, and so there is no sharp dividing line between big science and little science. That argument is certainly counterproductive.

Even more counterproductive, however, in my view, is the discussion that has been going on in the country in the last few months in particular, but also over the last year, that focuses on the fact that young people are not receiving the funding nor are older people receiving the funding that they would like to receive in support of their research activities. I agree that this is true, and in the '92 budget we have made determined efforts, both in the National Science Foundation and in the National Institutes of Health that support more than 75 percent of academic research in this country, to improve this situation and to improve it substantially.

But at the same time, I would plead with you and with all the members of the scientific community that in making this case, for heaven's sake, focus on the fact that there are untold opportunities out there that if followed up could have tremendous payback for the American taxpayer, for our entire system. Focus on the fact that we're not—because of a shortage of funding—following up on these opportunities and these possible great benefits to our society, rather than casting the argument in a form that is interpreted by a great many of the people in the Congress as an entitlement for scientists and engineers, because that one is very counterproductive.

And I think that you must remember that although the budget we've sent up this year is a very good one for

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science and technology, it is a request to the Congress and to the U.S. taxpayer, it is a proposal, and it is the Congress that, in fact, appropriates and makes these things really happen. Your help is going to be needed—this year more than it has ever been needed before—to convince the Congress that what we've asked of it is realistic, is a reasonable investment for the taxpayer to make—particularly at a time when we are really playing a zero-sum game in constant dollars. We have had to remove funding from some very attractive programs with strong constituencies to get the additional funding to apply to science and technology. So we need your help in making that case with the Congress.

But I assure you that any argument that says "because I've defined myself to be a scientist or engineer, I have some sort of right to federal funding" will not fly well in the Congress. On the other hand, I'm happy to be able to tell you that the Congress in general shares our belief that we as a nation are underinvesting seriously in science and technology. What they need are some compelling arguments about the opportunities that will not be followed up: The marvelous new avenues, new frontiers, new areas, where we have the talent, and we are simply unable to unleash it because we cannot provide the support for that talent. I would urge you to really consider that as a serious charge in the year ahead.

Now let me turn back to the MS&E survey report. Excellent as that report is, like all other reports, unless there is an effective follow-up, it can disappear without a ripple. Happily, this will not happen with the MS&E report. As you know, the publication of the report was followed by a series of four regional meetings held throughout the nation. All of them were held outside of Washington, D.C., in an effort to involve a broader range of persons in the discussion and to recognize two facts: one, it is widely recognized that Washington is the only place on the planet where sound travels faster than light; and second, when viewed dispassionately, Washington is in fact 69.2 square miles surrounded by reality. When I heard about these meetings, I called Frank Press and urged that these meetings should be used insofar as possible to identify initiatives that would be appropriate at the national level, even though the regional characteristic of the meetings was important. In my view, that process has been extremely successful, and I think you will agree with that when you receive the summary report of the regional meetings [available from the Materials Research Society] that I believe is scheduled for presentation later this morning. This report establishes a strategic planning process for materials science and engineering that involves industry, universities, and the federal government. It is organized around areas of national need, information and communication technologies, transportation, energy, health, the environment, and future materials. And it contains some very important recommendations about ways to increase the cooperation among the three players that I just mentioned. In the past we have talked a great deal about partnerships, but in fact have seen very little of it. I believe that with the initiative we have under way here in materials science and engineering, we have the possibility of showing the way toward a shortening of the innovation cycle and leveraging of scarce resources, to a very important end.

Now in parallel with this private sector activity, the federal government has also been moving forward in its planning for materials science. Most important, the FCCSET mechanism is now tooling up for an intensive crosscut of agency activity. It's the kind of planning that has led to the presidential initiatives in this year's budget, in education and human resources, high-performance computing, and global change. Although we have not yet run this through the full FCCSET committee for its blessing and cleaned up all the detailed negotiations with the Office of Management and Budget, I'm very confident that in fact next year, materials science and technology will be one of the issues that will receive this special consideration and coordination. And if this proceeds, as I believe it will, it will be carried out in major part by a materials steering group operating under the subcommittee on materials in FCCSET's Committee on Industry and Technology.

The kind of program that we would have in mind is one that would build very heavily on the work that has been done in these regional meetings and here in the Academy in the preparation of the MS&E report in the first place. A preliminary analysis carried out in this past year to get a feeling for the baseline involved shows that in fiscal year 1990 the federal government spent about \$1.4 billion for materials R&D, with about 85

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percent of that being spent on a category that is roughly characterized as advanced materials. In that same fiscal year, about \$185 million was spent on research and development for superconducting materials. These are the kinds of numbers that will be used for the foundation of the study on the integrated request that I expect we will be able to prepare on behalf of materials science next year.

In addition to this whole question of direct federal funding, there are many other issues that could affect materials science and engineering. These include the standardization of new materials, the evaluation of materials characteristics, and the management of databases containing materials information; perhaps the most exciting of all is the possibility of beginning to use a whole new generation of computer power to do theoretical work in materials science, which up to now has simply been impossible, to carry this whole question of the design of materials several steps farther than has been possible in the past.

And of course there is a whole series of other generic issues relevant to materials. These include the matter of technology transfer and support for generic precompetitive research and development, which is an area that this administration believes is one that fits very appropriately within its responsibility. There are new environmental considerations, environmental regulations, and new tax policies.

Many of these issues are now being taken up by an organization closely related to my office. In fact, it is a new organization which I now chair, and that is the National Critical Materials Council. The President asked me to chair the Council last year, and it has two other members, W. Henson Moore, who's the Deputy Secretary of Energy, and TS Ary, who is director of the Bureau of Mines.

By mandate, this council has special responsibility from the Congress for three areas of importance to you, namely advanced materials, critical materials, and superconducting materials. More broadly, what we are doing is to work within the council to integrate the various activities going on within OSTP and within FCCSET to strengthen the nation's overall materials effort. We're in the process of producing the advanced materials plan that is required by the Congress and that will be delivered later this year. It will detail many of the policy and technical steps being taken throughout the federal government to bring greater cohesion and coherence to materials science and engineering. It will draw also on a number of other activities within my office.

Many of you here have seen the report we issued this last September entitled *U.S. Technology Policy* [Executive Office of the President, Office of Science and Technology Policy, Washington, D.C., September 26, 1990]. This report should not be viewed as the last word on anything. It represents instead a first attempt on our part to pull together a statement in which all of us in the administration could agree on what our technology policy was. The fact that we had never articulated such a policy in the past was a very real impediment to a lot of the things that we wanted to do in the area of technology, and I think that we have begun a process that can have some important consequences.

We are just about to release to the President, and thirty days later to the Congress, the report of our National Critical Technologies Panel. It has identified a number of technologies that it believes are critical to our future. I used to think that economic competitiveness and national security could be considered as separate areas. That is no longer the case. It is certainly true that in the future economic strength may be a greater determinant of security than military strength, so the two must be considered together.

With this panel report behind us, we are also in the process of setting up out of my office the new national Critical Technologies Institute and it has as one of its major functions the follow-up on this Critical Technologies Report. For the first time, it will give us in OSTP the resources and personnel to do the kind of strategic planning in the long term that this field deserves. And it will allow us also to bring together the kind of partnerships I've discussed involving the universities, the national laboratories, and the federal government.

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And finally, I would mention the President's Council of Advisors on Science and Technology (PCAST). This is the private sector group that now meets on a monthly basis with the President and provides input directly to him. The chemistry within that group and between that group and the President has developed over the past year and is excellent at this point, so that private sector input goes into the very highest level of decision making in this administration. And that fills what would otherwise be an important gap in FCCSET activity, because by law FCCSET members and the members of all FCCSET committees must be federal employees. With PCAST working with FCCSET, we can in fact calibrate our activities against private sector opinion. For example, next week the FCCSET and the PCAST groups will be meeting jointly to get to know one another better, and since I have the privilege of chairing both groups, I also have the responsibility of making sure that the appropriate information transfer takes place between the two.

And so, just let me simply conclude by saying that, as I hope I've convinced you, we have identified your field as a very important one from the national point of view, one deserving the kind of integration and coherence that we have been able to bring to some other critical areas, and I look forward very much to working with you as we move ahead. The fact that you have done so much of the spade work already makes our task for the coming year just that much easier and hopefully will result in our turning out just that much better a product. I think I can guarantee you that through these efforts materials science and engineering will end up with a much higher profile within the federal government than it has had in the past. I believe that such emphasis is long overdue. Benjamin Franklin once said that "the greatest inventions are those inquiries which tend to increase the power of man over matter," and I would only say that that observation is vastly truer today than when Franklin first made it.

So I commend you for what you have done already, I look forward to working with you as we move ahead together, and I believe we have an exciting time ahead. There are tremendous opportunities out there and a great adventure, and all of us are fortunate to have the possibility of playing a role in it.