

Originally Processed With FOIA(s):
2005-0336-F

FOIA Number:
2005-0336-F

FOIA MARKER

**This is not a textual record. This is used as an
administrative marker by the George Bush Presidential
Library Staff.**

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files

OA/ID Number: 62002
Folder ID Number: 62002-001

Folder Title:
D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Stack:

Row:

Section:

Shelf:

Position:

0

0

0

0

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

December 4, 1992

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: KARL ERB

SUBJECT: POTENTIAL ROLE IN OSTP THROUGH THE TRANSITION

The Office of Personnel Management is legally required to place me (somewhere) in an SES career position if I so request. One option, which OPM suggested and favors, is for them to assign me to OSTP for a fixed period (probably 3 or 6 months) while they decide where to place me permanently.

For me, this arrangement has both attractions and drawbacks which I'm now analyzing.

For OSTP, the arrangement could greatly facilitate the transition if the incoming administration wanted to take advantage of it.

OPM, I believe, sees the arrangement as assuring senior administrative (as distinct from policy) continuity in OSTP through the transition. For them, the issue is simply one of finding the appropriate assignment for a career SES member, and its resolution is affected by the election only in that your recommendation would have to be made before you leave Office.

*Karl Erb file
Confidential*

THE WHITE HOUSE
WASHINGTON

March 20, 1992

Wladimir

Dear Mr. Ezhkov:

Attached is the article "U.S. Science and Technology Policy" for the journal INTEX. I apologize for the delay in getting it to you, but I trust that it will still be of interest to your readers.

Sincerely yours,

Allan

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

V. V. Ezhkov
RSFSR Ministry for Science, Higher Education,
and Technology Policy
Moscow, Russia

Attachment

*It was a great pleasure to be
able to meet and discuss various
problems with Boris Saltykov in
Paris. He is a most impressive
gentleman.
With warmest personal
regards.
DAB.*

U.S. SCIENCE AND TECHNOLOGY POLICY

by D. ALLAN BROMLEY

The Assistant to the President for Science and Technology
Executive Office of the President

[Article for submission to the Soviet journal INTEX.]

One of the most important aspects of the New World Order that is now taking shape is the extent to which science and technology will be called upon to satisfy fundamental human aspirations. Nations throughout the world recognize that the proper management and application of science and technology will be critical in raising living standards, guarding against acts of international aggression, and ensuring harmonious international relations.

Within the United States, the goals of science and technology are pursued through a research and development (R&D) system that is extremely large and complex. The United States devotes about \$150 billion a year to research and development, with almost half of that amount coming from the government and slightly more than half coming from the private sector. The total is more than is spent on research and development by Japan, West Germany, France, the United Kingdom, and Italy combined.

Of the U.S. government's support for research and development, about 60 percent goes for defense work, and about 40 percent goes for civilian work, with a gradual trend away from defense and toward civilian R&D. Defense R&D is sponsored largely by the Department of Defense, though the Department of Energy also makes important contributions to this work. Civilian R&D is divided among more than 20 federal agencies, with no one agency making the dominant contribution.

The entire system is overseen by the Executive Office of the President -- which includes the Office of Science and Technology Policy that I direct -- and by the U.S. Congress. Each year the President proposes a budget for federal expenditures to Congress, and the Congress acts on those proposals and appropriate funds for federal programs. It is a system designed to work toward consensus between the two branches of government -- usually, but not always, an amiable consensus. In this paper, I shall describe the federal government's R&D enterprise and some of the ways in which it is shaped by both the President and by the Congress.

R&D in the Bush Administration

Since the election of George Bush, funding by the federal government for research and development -- and particularly civilian R&D -- has grown considerably. Since 1989, federal support for nondefense R&D has gone up by a third, in figures uncorrected for inflation. Basic research funding has gone up by a quarter. Even defense research and development has risen, although the defense budget has decreased over that time.

These increases reflect the conviction -- shared by the Bush Administration and the Congress -- that funding of research and development is a vital investment in the future prosperity and security of not only the United States but the entire world. The Bush Administration has been seeking to increase investments in a number of areas, such as preventive health care, education, transportation systems, and so on, while controlling the rapid growth of current consumption. The increases in R&D have been a measure of our success in shifting these expenditures toward investment in the future and away from immediate consumption.

What makes these increases particularly remarkable is that they occurred when real growth in the U.S. government's domestic discretionary budget has been essentially limited to inflation as a result of the budget agreement made between the President and Congress in 1990. Increases for research and development have therefore had to come at the expense of other programs with very strong and vocal constituencies. And since

research and development make up one seventh of the U.S. domestic discretionary budget -- and about an equal percentage of the defense budget -- they form very large and tempting targets.

Rationale for Support of R&D

The U.S. government, and governments throughout the world, have several reasons for supporting research and development. At the most immediate and practical level, federal agencies support research and development to help meet their specific missions, whether in energy, space, transportation, or defense. This mission-oriented R&D can include both highly focused applied research and development aimed at specific goals and basic research that produces the new knowledge on which major advances are based.

Governments also have a much more abstract and idealistic reason for supporting scientific research -- namely, that the quest for scientific knowledge is one of the most profound adventures to which human beings have ever had access. The U.S. public overwhelmingly supports this rationale for basic scientific research. When asked their opinion of the statement "Even if it brings no immediate benefits, scientific research which advances the frontiers of knowledge is necessary and should be supported by the federal government," 4 out of 5 people surveyed agree.

The public also recognizes that, in time, even research that seems far from practical applications can produce rich economic and social returns. These returns are not easy to quantify, but a distinguished economist in the United States, Edwin Mansfield of the University of Pennsylvania, has made an initial attempt. Looking specifically at the application of research conducted at colleges and universities with federal support, he conservatively estimated that the average social rate of return on these past investments is 28 percent. In comparison, companies normally expect to receive returns on the order of 15 percent from investments in other areas such as plant and equipment.

The physicist Victor Weisskopf has a very succinct way of looking at the contributions of research to modern economies. He has written: "The 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."

Historical Developments in Federal Support of R&D

The U.S. government has not always been such a strong supporter of research and development. Before World War II, much of the support for scientific research came from private sources, and particularly from private philanthropies. Many of the leaders of the postwar science community were trained under this system, and its procedures had a great influence on later systems of research support.

World War II marked a major shift in the relationship between science and government. In part, this change reflected a profound transformation within science itself. Prior to World War II, fundamental research, then frequently called natural philosophy, was devoted to the understanding of nature. It was a gentlemanly pursuit, tolerated but not expected to yield anything of real value. In contrast, invention, devoted to the mastery of nature, was almost entirely empirical and essentially disconnected from natural philosophy. The former was considered to be of little practical use, whereas the latter was deemed to be eminently practical.

The war changed this relationship forever. The development of nuclear energy fundamentally altered international relations and introduced scientists into the center of government decision-making. The development of radar demonstrated the very pragmatic uses to which advanced technology could be put. And -- something that is less well known -- the delivery of new medical services to injured troops demonstrated the immeasurable human benefits to be gained by large-scale research and development in the life sciences.

Following the war, U.S. policy sought to strengthen the scientific resources that had proven so valuable. It was guided in part by a remarkable document entitled

Science, The Endless Frontier by Vannevar Bush, an advisor to President Roosevelt.

The argument made in that report still forms the foundation for U.S. science policy today -- and for important elements of U.S. technology policy as well. Essentially, the argument is that, because of the very nature of basic research, no one can predict where, when, or to whom its benefits will flow. Therefore, only the federal government is in the position to make the investments in fundamental knowledge of the size needed to bring the optimal return to society.

The Importance of Peer Review

What was to become the dominant system of federal support for research and development was crafted, in 1946, by Emanuel Piore and Robert Conrad, both then of the Office of Naval Research. Its basic principles are deceptively simple:

1. Find the best researchers (as determined by peer review) in each area of science.
2. Provide, wherever possible, the support that will allow them to do what they think best.
3. Stay out of their way while they are doing it, and minimize paperwork and other bureaucratic hindrances.

Underlying this system is the rather surprising concept that scientists themselves should decide how best to allocate federal support for science. Although this system has been criticized, it has worked extremely well to maintain the quality of the U.S. science and technology base.

The criticisms are well known:

1. It is an old boys' club wherein who you know is much more important than what you know.

2. It is intrinsically conservative and inherently biased against the truly innovative and pathbreaking ideas.

3. It is using up more and more of the time of the scientific peer reviewers, with the consequence that the reviews are not as thorough or as helpful as they once were.

Many of these issues were studied in a classic examination of peer reviewing carried out a number of years ago. On the basis of an extensive review of actual peer review activities, Merton and Zuckerman concluded that there was very little, if any, evidence to support the old-boy hypothesis -- none in the physical sciences, mathematics, and engineering; some in the life sciences; and perhaps a little more in the medical sciences. Overall, however, they concluded that at the very most perhaps 1 percent of the reviews were tainted. This is a remarkably good percentage, and even the influence of 1 percent of reviews is greatly diluted through the practice of using multiple reviewers.

There is a degree of conservatism in the process. But the program officers in each federal agency can and do fund highly speculative projects, and other mechanisms have been established to ensure that the speculative research project is not overlooked by funding agencies. Finally, the workload on reviewers has expanded considerably, and their time needs to be used as effectively and as efficiently as possible.

In the end, the best description of peer review is a paraphrase of Winston Churchill's famous remark about democracy: "Peer review is the worst possible approach to the allocation of federal support -- except for any and all of the possible alternatives." It has served the United States extremely well in maintaining a clear focus on excellence, as set forth in the original Piore-Conrad criteria.

Universities as Research Centers

Within the U.S. science and technology enterprise, universities have a very special position. They conduct about half of the basic research done in the United States, and

about a quarter of all research (excluding development). In addition, they train all of the young people who will make up the next generation of scientists and engineers.

We in the United States believe -- as a matter of fundamental policy -- that higher education and research are synergistic and inextricably interwoven. The United States therefore relies on its colleges and universities both for new knowledge and for young minds trained to use this knowledge in innovative and creative ways.

Interagency Coordination in a Bottom-Up System

Another unique aspect of science and technology in the United States is that our science and technology program is built largely from the bottom up rather than the top down. In most countries, a science and technology budget is established by the appropriate governmental body and is then divided among different programs. In the United States, the situation is more pluralistic. The desires of individual scientists and engineers manifest themselves in proposals developed by individuals and groups of individuals with shared research goals. These proposals are then filtered by the agencies as they put together their individual R&D portfolios. By the time a proposal is submitted, there usually exists a group of some size that believes it to incorporate a good idea.

One of the best aspects of this system is that if one agency does not like a particular idea, for whatever reason, the chances are good that another agency will find it appropriate to its mission. As noted above, over 20 agencies in the U.S. government support research and development, in addition to private industry and other nongovernmental entities. As a result, good ideas tend to be supported somewhere within the system.

Interagency Coordination

In such a system, however, coordination becomes a considerable challenge. Many of the agencies that support R&D work on similar questions or on pieces of an overall question for which they share responsibility. It is essential, particularly in interdisciplinary areas, to coordinate and integrate agency programs to produce coherent national programs rather than collections of up to 20 heterogeneous agency programs.

The Congress recognized the need for coordination when it created, in the same legislation that created the Office of Science and Technology Policy, the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET), which I chair. FCCSET brings together representatives from the various federal agencies that are involved with science and technology to work out ways to integrate interagency efforts most effectively and to ensure that the maximum science and technology results are obtained at whatever investment level Congressional action makes possible.

For many years after its establishment, the performance of FCCSET was disappointing because its members were at too low a policy level. Decisions reached in the Council could be -- and were -- disowned in the final stages of the budget process by more senior policy figures in each agency.

Today FCCSET, reflecting strong support from the President, includes in its membership the Secretaries or Deputy Secretaries of 12 of the 14 U.S. Cabinet agencies and the Administrators or Directors of all the independent agencies (including the National Science Foundation, the National Aeronautics and Space Administration, and the Environmental Protection Agency) involved with science and technology. With this new level of participation, the Council is achieving the goals of coordination and integration -- for the first time -- set forth in its founding legislation.

Seven standing committees have been formed under FCCSET in specific areas of science and technology, and these committees, together with their subcommittees and working groups, have undertaken a variety of new activities. For example, an important form of activity in which a number of the FCCSET committees are engaged is what is

referred to as a budget crosscut. A budget crosscut is a detailed interagency analysis and program planning effort for the entire federal activity in a particular area of science or technology. Last year, FCCSET carried out such crosscuts in three areas: global climate change, mathematics and science education, and high performance computing and communications. This year two new areas have been added to the original three: biotechnology and materials science and processing. Next year, 21st-century manufacturing will be added to this list.

Eventually, FCCSET's goal is to cover the most important areas in science and technology that extend across the missions of more than one federal agency. Once a crosscut process has been established in a given area, the analysis will be updated on an annual basis. This will provide both the President and the Congress with a coherent overview of all federal activity in each of the study areas.

In addition to areas focusing on budgets, FCCSET has established a number of interagency groups working on issues that affect the budget only tangentially. For example, it has set up a working group on risk assessment that is now undertaking a broad interagency examination of the different scientific methodologies used to assess risk with an eye toward reconciling disparate approaches. A major goal of the group is to obtain a general consensus regarding the assumptions and fundamental principles that will, in future, underlie the risk assessment activities of all federal agencies. Another group is working to coordinate all U.S. bilateral and multilateral international science and technology agreements with other countries and groups of countries such as the European Community. Yet another is examining the relationship between the federal government and the research-intensive universities.

Private Sector Input

In considering FCCSET, however, it should be borne in mind that all of its members, by law, must be government employees. Obtaining the private sector's input on matters of science and technology was one of the reasons why the President

established his Council of Advisors on Science and Technology (PCAST), which I chair. This is a group of 12 distinguished representatives of industry, academia, and the private foundations who meet monthly with the President and with other senior members of the White House staff to discuss a broad range of issues in science and technology. This is a rare case in the federal system where the President receives advice from outside of government that is not filtered by the bureaucracy.

PCAST has set up panels in seven areas of science and technology, including large projects in science, national security, economic competitiveness, and education. Many of these panels parallel ongoing activities within FCCSET committees. In this way, the views of the private sector can be made available to the more internal deliberations of federal officials and serve both to calibrate and validate those views.

Technology Policy and OSTP

Thus far this article has focused largely on science, but my office is the Office of Science and Technology Policy, and an important focus of my work has been to emphasize the "T" in OSTP. One of the Presidentially appointed and Senate-confirmed Associate Directors in OSTP is in charge of Industrial Technology, the first time such a position has existed. This position was created to emphasize that technology is extremely important for U.S. economic competitiveness and national security and that the Bush Administration is serious about working with the industrial community to advance the rate of technological progress.

Under the leadership of OSTP's Associate Director for Industrial Technology, OSTP issued in September 1990 the first statement ever produced of the United States' policies regarding technology development. That document, entitled U.S. Technology Policy, has been extremely valuable in that it had the support of everyone in the White House and has provided a common base for discussion and the implementation of new technology initiatives. The document describes the many ways in which the government influences the development and deployment of technology, from its fiscal policies to the

regulatory environment to the education and training of the workforce. What is perhaps most remarkable about these policies is how broad-based they are. Indeed, there are few government policies that do not in some way interact with technology.

That document also lays out the rationale for the government's support of technology. Essentially, the argument is the same as for basic research. With precompetitive, generic technologies -- those sufficiently removed from the marketplace that firms cannot yet use them to produce commercial products -- it is as impossible to predict where, when, or to whom its benefits will flow as it is with basic research. The government therefore has a role in supporting the development of those technologies up to the point where private firms can decide how, or if, those technologies can benefit them.

The Bush Administration terms this approach a technology policy rather than an industrial policy. The focus is on the underlying technical capabilities rather than on specific firms or industrial sectors. The Bush Administration does not believe that it is appropriate for the federal government to select winners or losers in the marketplace. We are not as well equipped or as well informed as the private sector is to make decisions as to which companies should succeed or fail.

Nevertheless, we do believe that the federal government has a very important role to play in the period from basic research -- where the federal government has in most cases already played a strong role -- through the point where it is possible to assess the commercial applications of a technology.

Since the release of the "U.S. Technology Policy," OSTP has been involved in a number of other technology-related initiatives. One has been the preparation and release of the first biennial report of the National Critical Technologies Panel, which was chaired by OSTP's Associate Director for Industrial Technology. That report surveyed 22 technologies that the panel considered essential for the United States' long-term security and economic prosperity. These 22 technologies encompass a very large portion of the nation's industrial base. For example, microelectronics and optoelectronics, simulation and modeling, and materials and manufacturing are essential to the continuing development of virtually all other advanced technologies --

and many seemingly low-technology products and processes as well.

More recently, OSTP has been involved in establishing the Critical Technologies Institute. This institute will undertake strategic studies and analyses that can assist federal agencies in determining whether increased investments in particular technologies will serve both agency mission needs and broader national needs. Its activities are controlled by an Operating Committee comprised of Cabinet Secretaries and senior White House officials that I chair at the request of the President.

International Cooperation in Science and Technology

A nation's approach to technology policy is one important determinant of its overall approach to international science and technology. But it is just one among a very broad range of factors. Of course, science and technology have always been inherently international activities. Frequently scientists and technologists are on more intimate terms with colleagues on the other side of the globe than they are with those down the hall.

But the international dimension of science is becoming increasingly important. As science and technology have permeated our daily lives, their international character has altered the conditions in which we live. And because of the end of the Cold War, all of us in the world science and engineering community now have a great many more opportunities in international science and technology than we have ever had before.

There are many extremely valuable interactions and informal agreements between academic, governmental, and industrial scientists in different countries that do not -- and should not -- require formal government oversight. But there are a wide range of international interactions in which national governments are directly involved. One particular area of interest involves large science projects. In many areas of science and technology, further advances require the use of increasingly expensive facilities. Indeed, some of these basic science projects -- commonly referred to as science "megaprojects" -- have become too expensive for any one nation. Yet these projects define key scientific

frontiers; if they do not go forward, certain areas of science will stagnate.

If such projects are to proceed, they must draw on the shared contributions of many countries. In the case of the megaprojects, however, different governmental institutions and procedures can sometimes cause difficulties. In particular, the United States tends to take a different approach to these megaprojects than do many other nations. In most other countries, when a project is approved, all of the required funding is appropriated at the outset. When the U.S. Congress, during its annual budget cycle, questions a project that was already approved, the United States' collaborators sometimes find it difficult to understand why we are reconsidering something that they thought was already decided.

Because of such episodes, and because in a few cases we have been less than sensitive to the needs of our collaborators for timely communication about changes in projects, the United States has gained a reputation as something of an unreliable partner in international cooperation. That reputation is not always justified, but it is understandable.

This has led us to discuss alternative approaches to international cooperation in the case of megaprojects. One element in such an approach would be the initiation of international discussions well before a specific project ever got started. The characteristics, location, funding, schedule, and involvement of various countries in an ensemble of megaprojects could be discussed in advance, so that collaboration can be made more effective from the very beginning.

Basically, what need to happen in the area of science involved is for the international community to come together and ask: What is the next question that needs answering to push forward our common frontiers? We could then decide what we need in the way of facilities and instrumentation, where we are going to put them, how we could fund them, how we are going to build them, and how we could take advantage of the best possible international expertise available.

Unfortunately, such projects as the Superconducting Super Collider and the European Large Hadron Collider are too far along for such a truly international approach to be practical. But they may represent the last of their kind -- the major

scientific facility identified with a particular nation or group of nations.

In March 1992 the United States participated in a ministerial-level meeting of the OECD Committee on Science and Technology Policy that addressed many of these issues. The United States raised the possibility of establishing a forum to facilitate exchange of information about potential megaprojects at an early conceptual stage. Over time, this forum could consider a possible international framework, based on a set of agreed-upon principles, to help evaluate megaprojects and establish priorities where possible.

The United States sees such an undertaking as an extremely valuable way to further international cooperation in science and technology and expand the frontiers of knowledge. By working together, the nations of the world can exploit the benefits of science much more effectively and much more efficiently than would otherwise be the case. The broad support in the OECD ministerial for the suggested forum provides grounds for optimism concerning effective internationalization of large science projects and programs.

Conclusion

Today we face a unique opportunity: to replace the tensions of the past with peaceful cooperation based increasingly on scientific and technological progress. We are approaching a new era in science and technology, an era of internationalization that will bring both the scientists and the citizens of all countries closer together.

It is no coincidence that the influence of science and the principles of democracy are simultaneously gaining strength around the world. The openness and self-correcting mechanisms of science fully support the fundamental principles of democracy. And it has been the freedom of communication made possible by new technologies such as fax machines and VCR's that has given critical strength to democracy movements around the world. Spurred on by these vastly increased communication capabilities, a dramatic shift in world outlook is occurring in what is an equally dramatic short period in human

history.

The longer I have worked in science, the more obvious it has become to me that science -- and the technologies derived from science -- have an essential unity, an underlying order and intrinsic beauty that flashes out when and where we least expect it. Ideas, approaches, and concepts developed in one area of science illuminate totally different ones -- and in the process our understanding of nature becomes ever deeper.

The same underlying unity can shape the relations among individuals, and among nations. At certain times during the Cold War, for example, scientific cooperation was the only form of regular, open contact between citizens of the United States and of the Soviet Union. Today, this cooperation can take place not under conditions of adversity but under conditions of peaceful cooperation. The result will be a new flowering of human understanding and human potential.

THE WHITE HOUSE
WASHINGTON

July 31, 1992

Dear Pat:

My apologies for the delay in responding to the copy of your thesis that you were kind enough to send me. I have read through it and must tell you that it is an excellent document describing some very high quality work. All of your group is to be congratulated on the very real progress that you have made in taking advantage of unique characteristics of the facilities both at Yale and at Chalk River.

You were fortunate to have the opportunity to work with Kim Lister who remains, in my opinion, a truly outstanding young physicist.

I am delighted that you are now established at the Bell Laboratories and know that you will enjoy your work there. My only regret is that we did not have a greater opportunity to interact while I was acting as your supervisor during the early part of your program but I am completely delighted with what you have accomplished and congratulate you upon it.

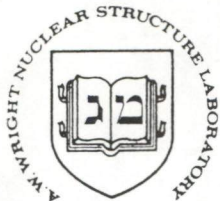
Please do keep me in touch and with warmest best wishes,

Sincerely yours,



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

Dr. Patrick J. Ennis
AT&T Bell Laboratories
Crawfords Corner Road
Holmdel, New Jersey 07733



YALE UNIVERSITY

A. W. WRIGHT NUCLEAR STRUCTURE LABORATORY

P.O. Box 6666, 272 Whitney Avenue, New Haven, Connecticut 06511

May 20, 1992

Dr. D. Allan Bromley
6716 Tulip Hill Terrace
Bethesda, Maryland 20816

Dear Dr. Bromley:

I am happy to tell you that I have accepted a position at AT&T Bell Laboratories. I received the official, written offer this morning, and I will be reporting to work on the morning of May 27. I will be at the Holmdel facility, and my supervisor will be Dr. Meah Shahabuddin, who has a Ph.D. in experimental nuclear physics from Oxford. I am very excited about the challenges that await me at Bell Laboratories, and am very eager to begin working and learning. I realize I am joining a long list of WNSL graduates at Bell Labs, and I take seriously the responsibility of carrying on the tradition of excellent performance which has characterized their work.

I am very grateful for all of your advice and guidance throughout my career at Yale. From the nuclear physics class, to discussions in your office and in the hallways, you have been an important part of my Yale education. Thank you for your assistance during my employment search and for recommending me to the people at AT&T.

My thesis is in the process of being bound and, as John told you, I will send you a copy when it becomes available. The thesis contains data from Daresbury and Yale, and Monte Carlo simulations I wrote to run on WNSL's computers. The results of the thesis have already been published in Nuclear Physics and Nuclear Instruments and Methods. My thesis defense went well and there were minimal changes requested by the committee. My committee consisted of : Profs. Bockelman, Hinds, Iachello, Lister and Parker, and E. Warburton was my "outside reader".

John told me he very much enjoyed his visit with you in Washington and that he hopes to see you again when he is in the D.C. area. I am looking forward to spending more time with John and his family, now that we will all be in New Jersey together. I have many friends here at the LAB, and at Yale in general, and I will certainly miss them. My girlfriend, Irene Blair, has just finished the second year of the Ph.D. program in Psychology, and hopefully we will get together as often as our schedules permit.

I hope things are going well for you in Washington. It must be exciting, yet hectic, to be there during an election year!

Thanks again for everything.

Sincerely yours,

A handwritten signature in cursive script that reads "Pat".

Patrick J. Ennis

THE WHITE HOUSE

WASHINGTON

April 16, 1992

Dear Henry:

My profound apologies for not getting back to you sooner concerning the White Paper that you prepared on our **Federal Program in Materials Science and Technology**. I found the paper to be extremely helpful and a very incisive and insightful document. I really must apologize for the fact that it slipped through my tickler system and thus the lack of a response.

It is precisely what I had in mind in our discussions and I know that Karl Erb has been talking with you on frequent occasions and has been getting a wealth of good advice in the process.

I assume that you already know that the President has nominated Karl for the Associate Directorship in Physical Sciences and Engineering and his confirmation hearings will be scheduled in the near future.

All of us here at OSTP thoroughly enjoyed the time you spent with us and, for my own part, I very much regret that I had so little time to actually sit down and talk with you which I had intended to do when we first discussed the possibility of your spending time with us. Unfortunately, as I am sure you gathered, life here is hectic in normal times and as an election year approaches it becomes even worse.

I do hope that you found some aspects of the visit to be interesting and profitable. I can only say that it was of tremendous help to all of us to have you with us and you will be welcome as a member of the OSTP family.

With warmest best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'D. Allan Bromley', with a stylized flourish at the end.

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

Professor Henry Ehrenreich
Division of Applied Sciences
Harvard University
Pierce Hall
Cambridge, Massachusetts 92138

"Document Control"

DOCUMENT NUMBER: 9125239

DIRECTORATE STATUS

TYPE: ACTION
ORIGINATOR: 02

STATUS I

FROM: EHRENREICH, Henry: HARVARD UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/27/91

SUBJECT: HE IS PROVIDING DR. BROMLEY WITH A COPY OF HIS WHITE
PAPER ENTITLED "THE PROPOSED FEDERAL PROGRAM IN
MATERIALS SCIENCE AND TECHNOLOGY: COMMENTS AND
VIEWS".

DIRECTORATE
ASSIGNED: D. Allan Bromley

STAFF
ASSIGNED:

ACTION
REQUIRED: AS NECESSARY

STAFF
ACTION:

OSTP DUE DATE: SENDER'S DUE DATE:
DATE COMPLETED: 01/13/91

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: INDUSTRIAL
Physical Science

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS: COPIES OF THIS PAPER HAVE ALREADY BEEN SENT TO DR. WONG AND DR.
ERB.

OSTP RECEIVED: 12/30/91
FILE: PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

*Shaw
dictated reply*

THE WHITE HOUSE

WASHINGTON

May 19, 1992

SCHEDULE PROPOSAL

TO: KATHERINE L. SUPER
Deputy Assistant to the President for Appointments and Scheduling

FROM: D. ALLAN BROMLEY *Alan*
Assistant to the President for Science and Technology

REQUEST: To greet the Chemistry Olympiad high school students participating in the International competition.

PURPOSE: To recognize the efforts of the winners of this competition and to serve as an opportunity for the President to demonstrate his enthusiasm and commitment to excellence in education, as well as to foster good will and understanding among the future scientists, engineers, and citizens of the world.

BACKGROUND: The International Chemistry Olympiad competition for high school students began 22 years ago in Eastern Europe and has grown to include nations all over the globe. Since 1984, the American Chemical Society has sponsored the US National Chemistry Olympiad which seeks to identify the brightest chemistry students in the country. These US students then compete internationally against teams from Europe.

PREVIOUS PARTICIPATION: None.

DATE AND TIME: July 20 or 21, 1992

DURATION: At the discretion of the President

LOCATION: White House Rose Garden

PARTICIPANTS: The President, members of the American Chemical Society and the students (attendees to be determined but will total 162 - see attached list)

OUTLINE OF EVENT: The President welcomes the Chemistry Olympiad students in the Rose Garden.

REMARKS REQUIRED: To be provided.

MEDIA COVERAGE: White House Photographer only.

RECOMMENDED BY: D. Allan Bromley.

OPPOSED BY: No one.

24TH INTERNATIONAL CHEMISTRY OLYMPIAD (IChO)
American Chemical Society
July 11 - 22, 1992

Each of the following delegations is currently selecting a team of four high school aged students to attend the olympiad; the names of these students will be forwarded as soon as possible.

Head of the Delegation

Australia

Dr. Richard Russell
Professor, Deakin University

Austria

Dr. Heiner Manfred
BG/BRG Villach

Belgium

Dr. Erik Onckelinx
Professor, Limburgs Universitair Centrum

Republic of Bulgaria

Dr. Dobri Lazarov
Professor, Sofia University

Canada

Dr. Robert Cook
Professor, Bishop's University

People's Republic of China

Dr. Tieming Cheng
Professor, Beijing Medical University

Commonwealth of Independent States

Dr. Vadim Kissine
Acting President, Russian Exchange Bank

Cuba

Dr. Hector Valdes Veloz
Director de Educacion General Politecnica y
Laboral, Ministerio de Educacion

Republic of Cyprus

Philippos Philippou
Cyprus Science Association

Czech and Slovak Federal Republic

Dr. Frantisek Zemanek
Professor, University of Charles

Denmark

Dr. Per Dal Jensen
Civ. Ing.

Finland

Dr. Reijo Kimmelmaa
Professor, University of Turku

France

Dr. Alain Vanichie
Ecole des Mines

Federal Republic of Germany

Dr. Wolfgang Bunder
Institute for Science Education at the
University of Kiel

Greece

Dr. Andreas Tsatsas

Republic of Hungary

Dr. Attila Nagy
Professor, Eotvos Lorand University

Italy

Dr. Umberto Costantino
Professor, University of Perugia

Korea

Dr. Sae-Hee Chang
Professor, Seoul National University

Latvia

Dr. Inara Akmeņe
Institute for Education Advancement

Republic of Lithuania

Dr. Rimantas Vaitkus
Institute for Applied Enzymology

Mexico

Dr. Carlos Castro-Acuna
Faculty of Chemistry, UNAM

The Netherlands

Dr. Wout Davids
National Institute for Curriculum Development

New Zealand

Dr. Robert G.A.R. MacLagan
Professor, University of Canterbury

Norway

Dr. Sigrid Furuseth
Professor, University of Oslo

Republic of Poland

Dr. Stanislaw Glab
Professor, Warsaw University

Romania

Dr. Luminita Vladescu

Singapore

Dr. Ming Keong Wong
Associate Professor, National
University of Singapore

Slovenia

Dr. Breda Novak

Sweden

Dr. Yngve Lindberg

Switzerland

Dr. Maurice Cosandey
Professor, Ch. des Noyers 2C

Taiwan

Dr. Ching-Ji Wu
Ministry of Education

Thailand

Dr. Charanal Panichajakul
Professor, Kasetsart University

**United Kingdom of Great Britain
and Northern Ireland**

Dr. Norman Hooper
The Royal Society of Chemistry

United States of America

Dr. Alfred Glatz
Livingston High School, NJ

Additional Guests

Dr. John Crum, Executive Director, American Chemical Society
Dr. Ernest Eliel, President, American Chemical Society
Mr. Richard Howe, Director of the Pittsburgh Organizing Committee, 24th IChO
Dr. David Lavallec, Chairman of the International Jury, 24th International Chemistry Olympiad
Ms. Sylvia Ware, Director, Education Division, American Chemical Society

Representatives from the three major funding agencies for the 24th International Chemistry Olympiad:

Miles Inc. (2)
Exxon Education Foundation (2)
National Science Foundation (1)

The teachers of the four U.S. team members (4)

Members of the 24th IChO Planning Group

Mr. Hugh Carr, Mt. Lebanon High School, Pittsburgh, PA
Mr. Gary Christian, Pittsburgh Scientific, Inc.
Dr. Michael Hampton, Department of Chemistry, University of Central Florida
Mr. C. Leonard Himes, Edgewater High School, FL
Dr. John Liebermann, Thomas Jefferson High School for Science and Technology, VA
Ms. Ann Puskaric, Calgon Corporation, Pittsburgh, PA
Dr. Barbara Sawrey, Department of Chemistry, University of California, San Diego

Staff of the American Chemical Society

Ms. Denise Creech, Senior Staff Associate, Office of High School Chemistry
Mr. Marv Coyner, Manager, ACS News Service
Ms. Allison Edmondson, Staff Assistant, Office of High School Chemistry
Ms. Nancy Euright, Head, Department of Public Communications
Ms. Martha Turckes, Manager, Office of High School Chemistry

"Document Control"

TYPE: ACTION

DOCUMENT NUMBER: 9201530

ORIGINATOR: 02

STATUS I

DIRECTORATE STATUS

FROM: ELIEL, Ernest L.: AMERICAN CHEMICAL SOCIETY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 04/29/92

SUBJECT: A REQUEST FOR DR. BROMLEY'S ASSISTANCE IN SECURING
THE PRESIDENT TO WELCOME STUDENTS PARTICIPATING IN
THE INTERNATIONAL CHEMISTRY OLYMPIAD IN THE ROSE
GARDEN.

DIRECTORATE

STAFF

ASSIGNED: INTERNATIONAL/POLICY

ASSIGNED:

ACTION

STAFF

REQUIRED: AS NECESSARY

ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE: 05/13/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 04/30/92
FILE: P-EDUCATION

DEPT RECEIVED:

CENTRAL FILES:



American Chemical Society

OFFICE OF THE PRESIDENT

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4600

Ernest L. Eliel
President-Elect, 1991
President, 1992
Immediate Past President, 1993

April 29, 1992

Dr. D. Allan Bromley, Director
Office of Science and Technology Policy
1600 Pennsylvania Avenue
Washington, DC 20500

Dear Dr. Bromley:

The International Chemistry Olympiad competition for high school students began 22 years ago in Eastern Europe and has grown to include not only the Western European nations, but nations from all over the globe. Since 1984, the American Chemical Society has sponsored the U.S. National Chemistry Olympiad which, through a multi-tiered selection process, seeks to identify the brightest chemistry students in the country. These U.S. students then compete internationally against teams from Eastern and Western Europe.

In July of this year, the 500th anniversary of Columbus' discovery of America, the United States will host the first International Olympiad ever held outside of Europe. The events surrounding the 1992 Olympiad will be split between two locations—Pittsburgh, Pennsylvania and Washington, D.C. Washington will be the site for the Olympiad's awards ceremony and other related events. On behalf of the American Chemical Society, I would like to ask your assistance in securing the President to welcome these science students, including the U.S. team, in the White House Rose Garden.

Approximately 300 people, representing 34 nations normally would be present for this welcoming ceremony. In order to provide flexibility for such an event, the Olympiad has left all of July 20th and the morning of the 21st open to accommodate any time that the President might be able to schedule for this activity. This event would be the highpoint of the competition and would serve as a unique opportunity for the President to demonstrate his enthusiasm and commitment to excellence in education, as well as to foster good will and understanding among the future scientists, engineers, and citizens of the world.

Enclosed is a booklet which furnishes additional background on the Olympiad. If further information is required to expedite a decision on this matter or if you have any questions, please contact Kathleen A. Ream, the Head of our Government Relations Department (872-4477), who will be able to provide you with whatever you may require.

We look forward to hearing from you as to the possibility of the President taking part in this welcoming ceremony.

Sincerely yours,

Ernest L. Eliel

ELE/KAR/wmg

Enclosure

cc: Dr. J. T. Ratchford
Ms. K. A. Ream
Ms. S. A. Ware

phenomena. Approximately 700 students sit for the exam; 20 are selected to attend the study camp.

The Olympiad Study Camp

The ten-day study camp is held in June at the U.S. Air Force Academy in Colorado Springs. The 20 students work under the tutelage of three mentors selected by the ACS Chemistry Olympiad Subcommittee, and members of the U.S. Air Force Academy Department of Chemistry. The students undergo rigorous training at camp; mornings are spent in lectures, followed by small-group, problem-solving sessions and a great deal of independent study. In the afternoon, students are assigned laboratory experiments and problems. Tests and quizzes are administered throughout the camp and are used as a guide for the mentors to select the "final four." The four students and their two mentors represent the United States at the IChO each July.

The IChO

The IChO originated in 1968 with participants from Czechoslovakia, Poland, and Hungary. Other Eastern European nations soon joined the program. Western European countries entered in 1974; the United States first sent a team in 1984. Now more than 120 high school students representing over 30 countries take part in the event.

The program schedule, set by the host country, usually begins with opening ceremonies on the second Monday of July. The

lab practical and the written exam, each five hours long, are held on Tuesday and Thursday, respectively. All grading is done by the mentors and the test committee of the host country. By Saturday, the final grading is completed and students are ranked for the awards. Gold medals are presented to the students who score in the top 10 percent on the exam, silver to the next 20 percent, bronze to the following 30 percent, and diplomas of recognition to the rest.

24th IChO

The United States will host the IChO, July 11-22, 1992 in two cities—Pittsburgh, Pa. and Washington, D.C. The program will begin with opening ceremonies on Sunday, July 12, in Pittsburgh. The exams will be held at the University of Pittsburgh. A cooperative team event, designed to group students from different countries together to solve chemistry-related problems, will be an added feature to this year's schedule. Between test days, and while the mentors are grading the exams, students are scheduled to tour Pittsburgh. After seven days, the students and mentors will travel to Washington, where they will tour the city for a few days and attend closing ceremonies at the National Academy of Sciences on July 21.



About the ACS

Chartered by Congress in 1876, the American Chemical Society is the world's largest scientific society, with a membership of almost 142,000 chemists and chemical engineers.

ACS activities range from the publication of numerous books, journals, and magazines to prestigious grants and awards; from sponsorship of some 1,800 local, regional, divisional, and national meetings to the provision of educational services; and from the establishment of professional employment standards to the public information service that keeps the public and media current on chemical information.



For more information, contact:

Denise Creech
U.S. National Chemistry Olympiad
Education Division
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, D.C. 20036
(202) 872-6169

(10/91)



American Chemical Society

DEPARTMENT OF GOVERNMENT RELATIONS
AND SCIENCE POLICY

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4477

May 8, 1992

FAX TRANSMITTAL

Ms. Marian Nida
Office of Science and Technology Policy
Old Executive Office Building
Washington, D.C. 20506

Dear Marian:

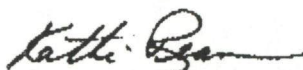
Attached is a list of potential participants for the proposed welcoming ceremony in the Rose Garden with the President.

As I mentioned previously, the July Olympiad will be the first time in the twenty-two years of its existence that the International Chemistry Olympiad ever has been held in the United States. President Bush's participation would be the highpoint of all of the events that have been planned for the students who will be attending.

If you require any more information to facilitate this request, please don't hesitate to contact me.

Thank you for your assistance.

Sincerely yours,


Kathleen A. Ream
Head

Attachment

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 3
To Marian Nida	From Kathi Ream	
Co.	Co. Am. Chem. Soc.	
Dept.	Phone # 872-4477	
Fax # 395-3261	Fax # 872-6206	

24TH INTERNATIONAL CHEMISTRY OLYMPIAD (IChO)
American Chemical Society
July 11 - 22, 1992

Each of the following delegations is currently selecting a team of four high school aged students to attend the olympiad; the names of these students will be forwarded as soon as possible.

Head of the Delegation

Australia

Dr. Richard Russell
Professor, Deakin University

Austria

Dr. Heiner Manfred
BG/BRG Villach

Belgium

Dr. Erik Onckelinx
Professor, Limburgs Universitair Centrum

Republic of Bulgaria

Dr. Dobri Lazarov
Professor, Sofia University

Canada

Dr. Robert Cook
Professor, Bishop's University

People's Republic of China

Dr. Tieming Cheng
Professor, Beijing Medical University

Commonwealth of Independent States

Dr. Vadim Kissine
Acting President, Russian Exchange Bank

Cuba

Dr. Hector Valdes Veloz
Director de Educacion General Politecnica y
Laboral, Ministerio de Educacion

Republic of Cyprus

Philippou Philippos
Cyprus Science Association

Czech and Slovak Federal Republic

Dr. Frantisek Zemanek
Professor, University of Charles

Denmark

Dr. Per Dal Jensen
Civ. Ing.

Finland

Dr. Reijo Kimmelma
Professor, University of Turku

France

Dr. Alain Vaniche
Ecole des Mines

Federal Republic of Germany

Dr. Wolfgang Bunder
Institute for Science Education at the
University of Kiel

Greece

Dr. Andreas Tsatsas

Republic of Hungary

Dr. Attila Nagy
Professor, Eotvos Lorand University

Italy

Dr. Umberto Costantino
Professor, University of Perugia

Korea

Dr. Sae-Hee Chang
Professor, Seoul National University

Latvia

Dr. Inara Akmeņe
Institute for Education Advancement

Republic of Lithuania

Dr. Rimantas Vaitkus
Institute for Applied Enzymology

Mexico

Dr. Carlos Castro-Acuna
Faculty of Chemistry, UNAM

The Netherlands

Dr. Wout Davids
National Institute for Curriculum Development

New Zealand

Dr. Robert G.A.R. MacLagan
Professor, University of Canterbury

Norway

Dr. Sigrid Furuseth
Professor, University of Oslo

Republic of Poland

Dr. Stanislaw Glab
Professor, Warsaw University

Romania

Dr. Luminita Vladescu

Singapore

Dr. Ming Keong Wong
Associate Professor, National
University of Singapore

Slovenia

Dr. Breda Novak

Sweden

Dr. Yngve Lindberg

Switzerland

Dr. Maurice Cosandey
Professor, Ch. des Noyers 2C

Taiwan

Dr. Ching-Ji Wu
Ministry of Education

Thailand

Dr. Charanal Panichajakul
Professor, Kasetsart University

**United Kingdom of Great Britain
and Northern Ireland**

Dr. Norman Hooper
The Royal Society of Chemistry

United States of America

Dr. Alfred Glatz
Livingston High School, NJ

Additional Guests

Dr. John Crum, Executive Director, American Chemical Society
Dr. Ernest Eliel, President, American Chemical Society
Mr. Richard Howe, Director of the Pittsburgh Organizing Committee, 24th IChO
Dr. David Lavallec, Chairman of the International Jury, 24th International Chemistry Olympiad
Ms. Sylvia Ware, Director, Education Division, American Chemical Society

Representatives from the three major funding agencies for the 24th International Chemistry Olympiad:

Miles Inc. (2)
Exxon Education Foundation (2)
National Science Foundation (1)

The teachers of the four U.S. team members (4)

Members of the 24th IChO Planning Group

Mr. Hugh Carr, Mt. Lebanon High School, Pittsburgh, PA
Mr. Gary Christian, Pittsburgh Scientific, Inc.
Dr. Michael Hampton, Department of Chemistry, University of Central Florida
Mr. C. Leonard Himes, Edgewater High School, FL
Dr. John Liebermann, Thomas Jefferson High School for Science and Technology, VA
Ms. Ann Puskaric, Calgon Corporation, Pittsburgh, PA
Dr. Barbara Sawrey, Department of Chemistry, University of California, San Diego

Staff of the American Chemical Society

Ms. Denise Creech, Senior Staff Associate, Office of High School Chemistry
Mr. Marv Coyner, Manager, ACS News Service
Ms. Allison Edmondson, Staff Assistant, Office of High School Chemistry
Ms. Nancy Enright, Head, Department of Public Communications
Ms. Martha Turckes, Manager, Office of High School Chemistry

THE WHITE HOUSE
WASHINGTON

May 19, 1992

Dear Dr. Eliel:

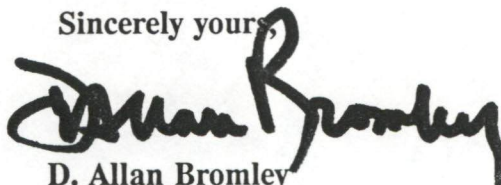
I have your letter of April 29 in which you request my assistance in having the President greet the students participating in the International Chemistry Olympiad.

I know that this is the sort of thing that the President likes very much to do but you will understand if his schedule in this election year in July is such that he would not find it possible to be here in Washington when your students pass through.

I shall certainly put this request in for scheduling but I cannot guarantee at this time what the results will be. Normally the President's schedule is not established until some thing like a month prior to the event in question.

With all best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written over the typed name.

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

Dr. Ernest L. Eliel
President
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, D.C. 20036

THE WHITE HOUSE
WASHINGTON

April 15, 1992

Dear Mr. Everett:

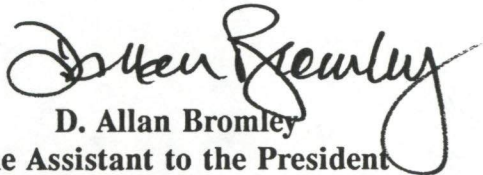
Difficult as it may be to believe I do actually answer my mail and in this case I have to begin with profound apologies for the long delay in responding to your good letter of December 2 concerning the Nation's nuclear future and your experience with an HTGR prototype.

I welcome your support for the HTGR approach and may very well call on you for help in the not too distant future when we again turn to detailed discussions of the important questions involved in developing a viable future civilian nuclear power option.

I myself have long been attracted by the intrinsic safety features and the high operating temperature of the HTGR and less than impressed with the viable future of liquid metal units.

I very much appreciate your taking the initiative to write to me. The experience of someone like yourself can be invaluable to me in the months ahead. For the moment please accept my thanks and I shall look forward to interacting with you in greater detail in future.

Sincerely yours



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

Mr. J. L. Everett, III
185 Egret Lane
Vero Beach, Florida 32963

"Document Control"

TYPE: INFORMATION

ORIGINATOR: 02

STATUS C

DOCUMENT NUMBER: 9125064

DIRECTORATE STATUS

FROM: EVERETT, J.L.

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/02/91

SUBJECT: RE: HIS VIEWS ON THE HTGR REACTOR AND THE NEW
PRODUCTION REACTOR.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

OSTP DUE DATE:
DATE COMPLETED:

SENDER'S DUE DATE:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

REMARKS:

EXT:

Why not send him a personal note?

("Welcome your expression of support for HTGR —
may call on you for help in the future
etc —")?

OSTP RECEIVED: 12/10/91
FILE: P-PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

Karl

THE WHITE HOUSE
WASHINGTON

March 20, 1992

bladimir
Dear Mr. Ezhkov:

Attached is the article "U.S. Science and Technology Policy" for the journal INTEX. I apologize for the delay in getting it to you, but I trust that it will still be of interest to your readers.

Sincerely yours,

Allan

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

V. V. Ezhkov
RSFSR Ministry for Science, Higher Education,
and Technology Policy
Moscow, Russia

Attachment

*It was a great pleasure to be
able to meet and discuss various
problems with Boris Saltykov in
Paris. He is a most impressive
gentleman.
With warmest personal
regards.
DAB.*

U.S. SCIENCE AND TECHNOLOGY POLICY

by D. ALLAN BROMLEY

**The Assistant to the President for Science and Technology
Executive Office of the President**

[Article for submission to the Soviet journal INTEX.]

One of the most important aspects of the New World Order that is now taking shape is the extent to which science and technology will be called upon to satisfy fundamental human aspirations. Nations throughout the world recognize that the proper management and application of science and technology will be critical in raising living standards, guarding against acts of international aggression, and ensuring harmonious international relations.

Within the United States, the goals of science and technology are pursued through a research and development (R&D) system that is extremely large and complex. The United States devotes about \$150 billion a year to research and development, with almost half of that amount coming from the government and slightly more than half coming from the private sector. The total is more than is spent on research and development by Japan, West Germany, France, the United Kingdom, and Italy combined.

Of the U.S. government's support for research and development, about 60 percent goes for defense work, and about 40 percent goes for civilian work, with a gradual trend away from defense and toward civilian R&D. Defense R&D is sponsored largely by the Department of Defense, though the Department of Energy also makes important contributions to this work. Civilian R&D is divided among more than 20 federal agencies, with no one agency making the dominant contribution.

The entire system is overseen by the Executive Office of the President -- which includes the Office of Science and Technology Policy that I direct -- and by the U.S. Congress. Each year the President proposes a budget for federal expenditures to Congress, and the Congress acts on those proposals and appropriate funds for federal programs. It is a system designed to work toward consensus between the two branches of government -- usually, but not always, an amiable consensus. In this paper, I shall describe the federal government's R&D enterprise and some of the ways in which it is shaped by both the President and by the Congress.

R&D in the Bush Administration

Since the election of George Bush, funding by the federal government for research and development -- and particularly civilian R&D -- has grown considerably. Since 1989, federal support for nondefense R&D has gone up by a third, in figures uncorrected for inflation. Basic research funding has gone up by a quarter. Even defense research and development has risen, although the defense budget has decreased over that time.

These increases reflect the conviction -- shared by the Bush Administration and the Congress -- that funding of research and development is a vital investment in the future prosperity and security of not only the United States but the entire world. The Bush Administration has been seeking to increase investments in a number of areas, such as preventive health care, education, transportation systems, and so on, while controlling the rapid growth of current consumption. The increases in R&D have been a measure of our success in shifting these expenditures toward investment in the future and away from immediate consumption.

What makes these increases particularly remarkable is that they occurred when real growth in the U.S. government's domestic discretionary budget has been essentially limited to inflation as a result of the budget agreement made between the President and Congress in 1990. Increases for research and development have therefore had to come at the expense of other programs with very strong and vocal constituencies. And since

research and development make up one seventh of the U.S. domestic discretionary budget -- and about an equal percentage of the defense budget -- they form very large and tempting targets.

Rationale for Support of R&D

The U.S. government, and governments throughout the world, have several reasons for supporting research and development. At the most immediate and practical level, federal agencies support research and development to help meet their specific missions, whether in energy, space, transportation, or defense. This mission-oriented R&D can include both highly focused applied research and development aimed at specific goals and basic research that produces the new knowledge on which major advances are based.

Governments also have a much more abstract and idealistic reason for supporting scientific research -- namely, that the quest for scientific knowledge is one of the most profound adventures to which human beings have ever had access. The U.S. public overwhelmingly supports this rationale for basic scientific research. When asked their opinion of the statement "Even if it brings no immediate benefits, scientific research which advances the frontiers of knowledge is necessary and should be supported by the federal government," 4 out of 5 people surveyed agree.

The public also recognizes that, in time, even research that seems far from practical applications can produce rich economic and social returns. These returns are not easy to quantify, but a distinguished economist in the United States, Edwin Mansfield of the University of Pennsylvania, has made an initial attempt. Looking specifically at the application of research conducted at colleges and universities with federal support, he conservatively estimated that the average social rate of return on these past investments is 28 percent. In comparison, companies normally expect to receive returns on the order of 15 percent from investments in other areas such as plant and equipment.

The physicist Victor Weisskopf has a very succinct way of looking at the contributions of research to modern economies. He has written: "The 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."

Historical Developments in Federal Support of R&D

The U.S. government has not always been such a strong supporter of research and development. Before World War II, much of the support for scientific research came from private sources, and particularly from private philanthropies. Many of the leaders of the postwar science community were trained under this system, and its procedures had a great influence on later systems of research support.

World War II marked a major shift in the relationship between science and government. In part, this change reflected a profound transformation within science itself. Prior to World War II, fundamental research, then frequently called natural philosophy, was devoted to the understanding of nature. It was a gentlemanly pursuit, tolerated but not expected to yield anything of real value. In contrast, invention, devoted to the mastery of nature, was almost entirely empirical and essentially disconnected from natural philosophy. The former was considered to be of little practical use, whereas the latter was deemed to be eminently practical.

The war changed this relationship forever. The development of nuclear energy fundamentally altered international relations and introduced scientists into the center of government decision-making. The development of radar demonstrated the very pragmatic uses to which advanced technology could be put. And -- something that is less well known -- the delivery of new medical services to injured troops demonstrated the immeasurable human benefits to be gained by large-scale research and development in the life sciences.

Following the war, U.S. policy sought to strengthen the scientific resources that had proven so valuable. It was guided in part by a remarkable document entitled

Science, The Endless Frontier by Vannevar Bush, an advisor to President Roosevelt. The argument made in that report still forms the foundation for U.S. science policy today -- and for important elements of U.S. technology policy as well. Essentially, the argument is that, because of the very nature of basic research, no one can predict where, when, or to whom its benefits will flow. Therefore, only the federal government is in the position to make the investments in fundamental knowledge of the size needed to bring the optimal return to society.

The Importance of Peer Review

What was to become the dominant system of federal support for research and development was crafted, in 1946, by Emanuel Piore and Robert Conrad, both then of the Office of Naval Research. Its basic principles are deceptively simple:

1. Find the best researchers (as determined by peer review) in each area of science.
2. Provide, wherever possible, the support that will allow them to do what they think best.
3. Stay out of their way while they are doing it, and minimize paperwork and other bureaucratic hindrances.

Underlying this system is the rather surprising concept that scientists themselves should decide how best to allocate federal support for science. Although this system has been criticized, it has worked extremely well to maintain the quality of the U.S. science and technology base.

The criticisms are well known:

1. It is an old boys' club wherein who you know is much more important than what you know.

2. It is intrinsically conservative and inherently biased against the truly innovative and pathbreaking ideas.

3. It is using up more and more of the time of the scientific peer reviewers, with the consequence that the reviews are not as thorough or as helpful as they once were.

Many of these issues were studied in a classic examination of peer reviewing carried out a number of years ago. On the basis of an extensive review of actual peer review activities, Merton and Zuckerman concluded that there was very little, if any, evidence to support the old-boy hypothesis -- none in the physical sciences, mathematics, and engineering; some in the life sciences; and perhaps a little more in the medical sciences. Overall, however, they concluded that at the very most perhaps 1 percent of the reviews were tainted. This is a remarkably good percentage, and even the influence of 1 percent of reviews is greatly diluted through the practice of using multiple reviewers.

There is a degree of conservatism in the process. But the program officers in each federal agency can and do fund highly speculative projects, and other mechanisms have been established to ensure that the speculative research project is not overlooked by funding agencies. Finally, the workload on reviewers has expanded considerably, and their time needs to be used as effectively and as efficiently as possible.

In the end, the best description of peer review is a paraphrase of Winston Churchill's famous remark about democracy: "Peer review is the worst possible approach to the allocation of federal support -- except for any and all of the possible alternatives." It has served the United States extremely well in maintaining a clear focus on excellence, as set forth in the original Piore-Conrad criteria.

Universities as Research Centers

Within the U.S. science and technology enterprise, universities have a very special position. They conduct about half of the basic research done in the United States, and

about a quarter of all research (excluding development). In addition, they train all of the young people who will make up the next generation of scientists and engineers.

We in the United States believe -- as a matter of fundamental policy -- that higher education and research are synergistic and inextricably interwoven. The United States therefore relies on its colleges and universities both for new knowledge and for young minds trained to use this knowledge in innovative and creative ways.

Interagency Coordination in a Bottom-Up System

Another unique aspect of science and technology in the United States is that our science and technology program is built largely from the bottom up rather than the top down. In most countries, a science and technology budget is established by the appropriate governmental body and is then divided among different programs. In the United States, the situation is more pluralistic. The desires of individual scientists and engineers manifest themselves in proposals developed by individuals and groups of individuals with shared research goals. These proposals are then filtered by the agencies as they put together their individual R&D portfolios. By the time a proposal is submitted, there usually exists a group of some size that believes it to incorporate a good idea.

One of the best aspects of this system is that if one agency does not like a particular idea, for whatever reason, the chances are good that another agency will find it appropriate to its mission. As noted above, over 20 agencies in the U.S. government support research and development, in addition to private industry and other nongovernmental entities. As a result, good ideas tend to be supported somewhere within the system.

Interagency Coordination

In such a system, however, coordination becomes a considerable challenge. Many of the agencies that support R&D work on similar questions or on pieces of an overall question for which they share responsibility. It is essential, particularly in interdisciplinary areas, to coordinate and integrate agency programs to produce coherent national programs rather than collections of up to 20 heterogeneous agency programs.

The Congress recognized the need for coordination when it created, in the same legislation that created the Office of Science and Technology Policy, the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET), which I chair. FCCSET brings together representatives from the various federal agencies that are involved with science and technology to work out ways to integrate interagency efforts most effectively and to ensure that the maximum science and technology results are obtained at whatever investment level Congressional action makes possible.

For many years after its establishment, the performance of FCCSET was disappointing because its members were at too low a policy level. Decisions reached in the Council could be -- and were -- disowned in the final stages of the budget process by more senior policy figures in each agency.

Today FCCSET, reflecting strong support from the President, includes in its membership the Secretaries or Deputy Secretaries of 12 of the 14 U.S. Cabinet agencies and the Administrators or Directors of all the independent agencies (including the National Science Foundation, the National Aeronautics and Space Administration, and the Environmental Protection Agency) involved with science and technology. With this new level of participation, the Council is achieving the goals of coordination and integration -- for the first time -- set forth in its founding legislation.

Seven standing committees have been formed under FCCSET in specific areas of science and technology, and these committees, together with their subcommittees and working groups, have undertaken a variety of new activities. For example, an important form of activity in which a number of the FCCSET committees are engaged is what is

referred to as a budget crosscut. A budget crosscut is a detailed interagency analysis and program planning effort for the entire federal activity in a particular area of science or technology. Last year, FCCSET carried out such crosscuts in three areas: global climate change, mathematics and science education, and high performance computing and communications. This year two new areas have been added to the original three: biotechnology and materials science and processing. Next year, 21st-century manufacturing will be added to this list.

Eventually, FCCSET's goal is to cover the most important areas in science and technology that extend across the missions of more than one federal agency. Once a crosscut process has been established in a given area, the analysis will be updated on an annual basis. This will provide both the President and the Congress with a coherent overview of all federal activity in each of the study areas.

In addition to areas focusing on budgets, FCCSET has established a number of interagency groups working on issues that affect the budget only tangentially. For example, it has set up a working group on risk assessment that is now undertaking a broad interagency examination of the different scientific methodologies used to assess risk with an eye toward reconciling disparate approaches. A major goal of the group is to obtain a general consensus regarding the assumptions and fundamental principles that will, in future, underlie the risk assessment activities of all federal agencies. Another group is working to coordinate all U.S. bilateral and multilateral international science and technology agreements with other countries and groups of countries such as the European Community. Yet another is examining the relationship between the federal government and the research-intensive universities.

Private Sector Input

In considering FCCSET, however, it should be borne in mind that all of its members, by law, must be government employees. Obtaining the private sector's input on matters of science and technology was one of the reasons why the President

established his Council of Advisors on Science and Technology (PCAST), which I chair. This is a group of 12 distinguished representatives of industry, academia, and the private foundations who meet monthly with the President and with other senior members of the White House staff to discuss a broad range of issues in science and technology. This is a rare case in the federal system where the President receives advice from outside of government that is not filtered by the bureaucracy.

PCAST has set up panels in seven areas of science and technology, including large projects in science, national security, economic competitiveness, and education. Many of these panels parallel ongoing activities within FCCSET committees. In this way, the views of the private sector can be made available to the more internal deliberations of federal officials and serve both to calibrate and validate those views.

Technology Policy and OSTP

Thus far this article has focused largely on science, but my office is the Office of Science and Technology Policy, and an important focus of my work has been to emphasize the "T" in OSTP. One of the Presidentially appointed and Senate-confirmed Associate Directors in OSTP is in charge of Industrial Technology, the first time such a position has existed. This position was created to emphasize that technology is extremely important for U.S. economic competitiveness and national security and that the Bush Administration is serious about working with the industrial community to advance the rate of technological progress.

Under the leadership of OSTP's Associate Director for Industrial Technology, OSTP issued in September 1990 the first statement ever produced of the United States' policies regarding technology development. That document, entitled U.S. Technology Policy, has been extremely valuable in that it had the support of everyone in the White House and has provided a common base for discussion and the implementation of new technology initiatives. The document describes the many ways in which the government influences the development and deployment of technology, from its fiscal policies to the

regulatory environment to the education and training of the workforce. What is perhaps most remarkable about these policies is how broad-based they are. Indeed, there are few government policies that do not in some way interact with technology.

That document also lays out the rationale for the government's support of technology. Essentially, the argument is the same as for basic research. With precompetitive, generic technologies -- those sufficiently removed from the marketplace that firms cannot yet use them to produce commercial products -- it is as impossible to predict where, when, or to whom its benefits will flow as it is with basic research. The government therefore has a role in supporting the development of those technologies up to the point where private firms can decide how, or if, those technologies can benefit them.

The Bush Administration terms this approach a technology policy rather than an industrial policy. The focus is on the underlying technical capabilities rather than on specific firms or industrial sectors. The Bush Administration does not believe that it is appropriate for the federal government to select winners or losers in the marketplace. We are not as well equipped or as well informed as the private sector is to make decisions as to which companies should succeed or fail.

Nevertheless, we do believe that the federal government has a very important role to play in the period from basic research -- where the federal government has in most cases already played a strong role -- through the point where it is possible to assess the commercial applications of a technology.

Since the release of the "U.S. Technology Policy," OSTP has been involved in a number of other technology-related initiatives. One has been the preparation and release of the first biennial report of the National Critical Technologies Panel, which was chaired by OSTP's Associate Director for Industrial Technology. That report surveyed 22 technologies that the panel considered essential for the United States' long-term security and economic prosperity. These 22 technologies encompass a very large portion of the nation's industrial base. For example, microelectronics and optoelectronics, simulation and modeling, and materials and manufacturing are essential to the continuing development of virtually all other advanced technologies --

and many seemingly low-technology products and processes as well.

More recently, OSTP has been involved in establishing the Critical Technologies Institute. This institute will undertake strategic studies and analyses that can assist federal agencies in determining whether increased investments in particular technologies will serve both agency mission needs and broader national needs. Its activities are controlled by an Operating Committee comprised of Cabinet Secretaries and senior White House officials that I chair at the request of the President.

International Cooperation in Science and Technology

A nation's approach to technology policy is one important determinant of its overall approach to international science and technology. But it is just one among a very broad range of factors. Of course, science and technology have always been inherently international activities. Frequently scientists and technologists are on more intimate terms with colleagues on the other side of the globe than they are with those down the hall.

But the international dimension of science is becoming increasingly important. As science and technology have permeated our daily lives, their international character has altered the conditions in which we live. And because of the end of the Cold War, all of us in the world science and engineering community now have a great many more opportunities in international science and technology than we have ever had before.

There are many extremely valuable interactions and informal agreements between academic, governmental, and industrial scientists in different countries that do not -- and should not -- require formal government oversight. But there are a wide range of international interactions in which national governments are directly involved. One particular area of interest involves large science projects. In many areas of science and technology, further advances require the use of increasingly expensive facilities. Indeed, some of these basic science projects -- commonly referred to as science "megaprojects" -- have become too expensive for any one nation. Yet these projects define key scientific

frontiers; if they do not go forward, certain areas of science will stagnate.

If such projects are to proceed, they must draw on the shared contributions of many countries. In the case of the megaprojects, however, different governmental institutions and procedures can sometimes cause difficulties. In particular, the United States tends to take a different approach to these megaprojects than do many other nations. In most other countries, when a project is approved, all of the required funding is appropriated at the outset. When the U.S. Congress, during its annual budget cycle, questions a project that was already approved, the United States' collaborators sometimes find it difficult to understand why we are reconsidering something that they thought was already decided.

Because of such episodes, and because in a few cases we have been less than sensitive to the needs of our collaborators for timely communication about changes in projects, the United States has gained a reputation as something of an unreliable partner in international cooperation. That reputation is not always justified, but it is understandable.

This has led us to discuss alternative approaches to international cooperation in the case of megaprojects. One element in such an approach would be the initiation of international discussions well before a specific project ever got started. The characteristics, location, funding, schedule, and involvement of various countries in an ensemble of megaprojects could be discussed in advance, so that collaboration can be made more effective from the very beginning.

Basically, what need to happen in the area of science involved is for the international community to come together and ask: What is the next question that needs answering to push forward our common frontiers? We could then decide what we need in the way of facilities and instrumentation, where we are going to put them, how we could fund them, how we are going to build them, and how we could take advantage of the best possible international expertise available.

Unfortunately, such projects as the Superconducting Super Collider and the European Large Hadron Collider are too far along for such a truly international approach to be practical. But they may represent the last of their kind -- the major

scientific facility identified with a particular nation or group of nations.

In March 1992 the United States participated in a ministerial-level meeting of the OECD Committee on Science and Technology Policy that addressed many of these issues. The United States raised the possibility of establishing a forum to facilitate exchange of information about potential megaprojects at an early conceptual stage. Over time, this forum could consider a possible international framework, based on a set of agreed-upon principles, to help evaluate megaprojects and establish priorities where possible.

The United States sees such an undertaking as an extremely valuable way to further international cooperation in science and technology and expand the frontiers of knowledge. By working together, the nations of the world can exploit the benefits of science much more effectively and much more efficiently than would otherwise be the case. The broad support in the OECD ministerial for the suggested forum provides grounds for optimism concerning effective internationalization of large science projects and programs.

Conclusion

Today we face a unique opportunity: to replace the tensions of the past with peaceful cooperation based increasingly on scientific and technological progress. We are approaching a new era in science and technology, an era of internationalization that will bring both the scientists and the citizens of all countries closer together.

It is no coincidence that the influence of science and the principles of democracy are simultaneously gaining strength around the world. The openness and self-correcting mechanisms of science fully support the fundamental principles of democracy. And it has been the freedom of communication made possible by new technologies such as fax machines and VCR's that has given critical strength to democracy movements around the world. Spurred on by these vastly increased communication capabilities, a dramatic shift in world outlook is occurring in what is an equally dramatic short period in human

history.

The longer I have worked in science, the more obvious it has become to me that science -- and the technologies derived from science -- have an essential unity, an underlying order and intrinsic beauty that flashes out when and where we least expect it. Ideas, approaches, and concepts developed in one area of science illuminate totally different ones -- and in the process our understanding of nature becomes ever deeper.

The same underlying unity can shape the relations among individuals, and among nations. At certain times during the Cold War, for example, scientific cooperation was the only form of regular, open contact between citizens of the United States and of the Soviet Union. Today, this cooperation can take place not under conditions of adversity but under conditions of peaceful cooperation. The result will be a new flowering of human understanding and human potential.

THE WHITE HOUSE
WASHINGTON

January 7, 1992

Dear Mr. Erhardt:

Thank you for your letter of December 6 inviting me to be your luncheon speaker at either the February or March meeting of the Forum to be held at the Georgetown Club here in Washington. I apologize for the much belated response.

As much as I would like to join you and your colleagues, my schedule for the next few months is extremely busy, so I must regretfully decline your invitation.

I appreciate your thinking of me and would like to offer my best wishes for a successful meeting.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", written in a cursive style.

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

Mr. John A. Erhardt
Executive Director
Global Business Forum
201 East 42nd Street
Suite 1506
New York, New York 10017

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9125082

ORIGINATOR: 02

SPEECH: YES NO

FROM: ERHARDT, John A.: GLOBAL BUSINESS FORUM

DATE OF EVENT:

THRU:

TENTATIVE DATES: FEB/MAR 1992

LOCATION OF EVENT: GEORGETOWN CLUB

TIME OF EVENT:

SUBJECT: AN INVITATION TO BE THE GUEST SPEAKER AT A LUNCHEON
DISCUSSION MEETING.

RSVP: 12/26/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO: Steve Olson

REMARKS:

DATE OF LETTER: 12/06/91

DATE RECEIVED: 12/12/91

FILE: P-INVITATION-SPEECH



5082

RECEIVED

GLOBAL BUSINESS FORUM

ST DEC 12 A10: 51

OSIP
MAIL ROOM

December 6, 1991

The Honorable Dr. D. Allan Bromley
Assistant to the President and Director
Office of Science and Technology Policy
17th Street and Pennsylvania Avenue N.W.
Room #358
Washington, D.C. 20506

Dear Dr. Bromley,

On behalf of the executives of the Global Business Forum, we would like to invite you to be our guest speaker at a luncheon discussion meeting at the Georgetown Club in Washington sometime in February or March 1992.

The Forum is a private limited membership organization consisting of international corporations based in Europe, North America and Japan. Enclosed please find a Forum leaflet which lists the member companies.

A primary goal of the Forum is to serve as a bridge between the business communities of North America and Europe and policy-makers as well as opinion leaders in governments, intergovernmental organizations and non-governmental organizations.

Among the Forum's recent guests have been: U.S. officials in the Departments of State, Energy and Treasury as well as the U.S. Trade Representative's Office; Congressional staff; various commissioners of the European Economic Community; heads of various United Nations organizations; diplomats and senior foreign government officials. Enclosed please find a list of past guest speakers.

Forum meetings are very informal. We would like you to discuss U.S. environmental policy relating to the 1992 UN Conference on Environment and Development, negotiations on global warming and the Montreal Convention, as well as efforts to promote industrial research and development and enhanced technological applications in strategically important sectors. Your remarks of fifteen to twenty minutes would be followed by an interchange with executives from the Forum's member companies.

Program and Management by Global Business Relations, Inc.

201 East 42nd Street • Suite 1506 • New York, New York 10017 • Telephone: (212) 983-6762 • Fax: (212) 808-0971 • Telex: 4938419 GBR UI

D. Allan Bromley
December 6, 1991
Page 2

We will call your office in mid-December to see when you might be able to meet with us.

Sincerely,

A handwritten signature in cursive script, reading "John A. Erhardt". The signature is fluid and elegant, with a long horizontal stroke at the end.

John A. Erhardt
Executive Director

JAE/mm

enclosure

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01a. Letter	To: Gilbert Cook From: Allan Bromley Re: Letter of Recommendation for Frederick Bernthal [personal information redacted] (2 pp.)	3/29/91	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
 P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
 P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
 P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
 P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
 (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
 (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

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9120798

FROM: COOK, A. Gilbert: VALPARAISO UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/13/91

SUBJECT: REQUEST FOR A LETTER OF SUPPORT FOR DR. FRED
BERNTHAL.

ASSIGNED TO: D. Allan Bromley

ACTION REQUIRED: AS APPROPRIATE

SENDER'S DUE DATE: OSTP DUE DATE: 04/01/91

DATE COMPLETED: -----

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 03/19/91

FILE: BROMLEY REFERRAL

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01b. Letter	To: Allan Bromley From: Gilbert Cook Re: Request for Letter of Recommendation for Frederick Bernthal [personal information redacted] (1 pp.)	3/13/91	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02a. Letter	To: Maryanne Bach From: Allan Bromley Re: Letter of Recommendation [personal information redacted] (1 pp.)	1/29/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02b. Letter	To: George Knaphus From: Allan Bromley Re: Letter of Recommendation for Maryanne Bach [personal information redacted] (2 pp.)	1/29/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or
financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President
and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of
personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of
gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an
agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02c. Letter	To: Martin Jischke From: Allan Bromley Re: Letter of Recommendation for Maryanne Bach [personal information redacted] (2 pp.)	9/3/91	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02d. Letter	To: John Cunningham From: Allan Bromley Re: Letter of Recommendation for Maryanne Bach [personal information redacted] (2 pp.)	9/3/91	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or
financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President
and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of
personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of
gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an
agency [(b)(2) of the FOIA]
(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

THE WHITE HOUSE

April 21, 1992

Dear Maryanne:

Warmest congratulations on the Iowa State Recognition. I know from my own experience that such recognition from one's own university means much more than that from anywhere.

Hope we just keep our fingers crossed that Providence College comes through.

I am sure that you will enjoy your weekend in Ames.

Warmest best wishes.

Sincerely

Alan



U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
OFFICE OF PROGRAM ANALYSIS
1849 C STREET, NW, MAIL STOP 4412
WASHINGTON, DC 20240

DATE: 4/13/92 + 4/14/92

TO: Dr Bromley

AGENCY: WH/OSTP

FAX NUMBER: 395-3261

TELEPHONE No: 456-7116

FROM: Charyn Beech

TELEPHONE No: 708-5978

COMMENTS: Thank you for your direct encouragement
+ involvement. I realize this award would not be
coming if it weren't for your original correspondence

I am giving the Iowa State - Botany Department address
later this month. This is the address Norman Borlaug was
asked to give a few yrs back, so I am honored to follow him.

Happy Easter
Charyn

NUMBER OF PAGES (INCLUDING COVER): 2

PPA FAX NO.: (202) 208-4867 / FTS FAX NO.: 268-4867

IOWA STATE UNIVERSITY

Alumni Association

Alumni Suite, Memorial Union
2229 Lincoln Way
Ames, Iowa 50010-7164
515 294-6525
FAX 515 294-9402

March 25, 1992

Ms. Maryanne C. Bach
27 College Avenue
Annapolis, MD 21401

Dear Maryanne:

It is my pleasure to inform you that the Iowa State University Alumni Association has selected you to receive the Outstanding Young Alumnus Recognition for achievements which have honored Iowa State University. I'm pleased to be the first to congratulate you on this eminent recognition.

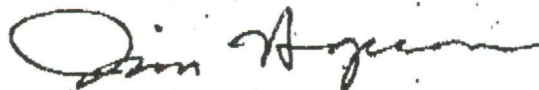
Your award will be presented at the Honors and Awards Convocation on June 8, 1992, during Alumni Days on the Iowa State University campus.

Alumni Association President Jill Wagner-King and Honors and Awards Committee Chair Brad Langguth join me in extending an invitation to you and one guest for breakfast at 8 a.m., Saturday, June 6, in the Memorial Union. The Honors and Awards Convocation will follow at 10:30 a.m., and the All-Alumni Luncheon at 12:30 p.m. Your award will be presented at the Convocation, which is the highlight of the annual Alumni Days activities, and your family and friends are welcome to attend.

The Office of University Relations will prepare a news release announcing your recognition. To ensure that we have current and accurate information about you, please complete the enclosed biographical form and return it to us within the next few days. You may list on that form the local newspaper to which you would like us to send notice of this recognition. We also will need to receive your photograph by April 10 to include in the Convocation program.

Alumni Days involve activities on Thursday, Friday and Saturday, June 4-6. You and a guest are cordially invited to a reception for awardees and reunion classes hosted by the university president on Friday afternoon, June 5, at 2:30 p.m. at The Knoll. All other events directly connected with your award presentation will take place on Saturday. In May we will send you more information and reservation forms.

My sincere congratulations,



James A. Hopson
Executive Director

P.S. The names of others being honored are on the enclosed list.

cc: President Martin C. Jischke
College Dean
Department Chair
Nominator

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
03. Letter	To: Solomon Buchsbaum From: Allan Bromley Re: Letter of Recommendation for Pat Ennis [personal information redacted] (2 pp.)	3/26/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

THE WHITE HOUSE
WASHINGTON

January 3, 1992

Dear Russell:

I am, of course, happy to write to Dean Gardner on your behalf and have done so.

I assume that the post in question would allow you to maintain your contact with the Argonne National Laboratory since it would be a great pity were you not able to follow up on some of the beautiful work that you have been doing in the recent past.

Please do keep in touch and if there is anything further that I can do to be helpful please let me know.

With warmest best wishes for a happy, healthy and very regarding 1992 to all the Betts.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

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

Dr. Russell R. Betts
Physics Division
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04a. Letter	To: Yoram Alhassid From: Allan Bromley Re: Draft waiver [personal information redacted] (2 pp.)	7/15/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
 P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
 P-3 Release would violate a Federal statute [(a)(3) of the PRA]
 P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
 P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
 P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
 (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
 (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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04b. Letter	To: Allan Bromley From: Yoram Alhassid Re: Draft waiver [personal information redacted] (2 pp.)	6/23/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04c. Letter	To: Draft Officials, Israeli Armed Forces From: Allan Bromley Re: Draft waiver [personal information redacted] (3 pp.)	11/1/90	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed: 2/5/2010	OA/ID Number: 62002-001
FOIA/SYS Case #: 2005-0336-F	Appeal Case #:
Re-review Case #:	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
05a. Letter	To: Office of Admissions From: Allan Bromley Re: Letter of Recommendation for Dana Bromley [personal information redacted] (2 pp.)	4/23/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
05b. Letter	To: Admissions Department From: Allan Bromley Re: Letter of Recommendation for Dana Bromley [personal information redacted] (2 pp.)	1/29/92	(b)(6)	

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: D. Allan Bromley Correspondence - A-E [4 of 4] [1992]

Date Closed:	2/5/2010	OA/ID Number:	62002-001
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(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

1/26

Dr. Bromley:

On Friday your nephew Dana called to give you the name and address of the chiropractic college that he is applying to.

**Canadian Memorial Chiropractic College
1900 Bayview Avenue
Toronto, Ontario
CANADA M4G3E6**

Lisa

Send a copy of my
letter to Canadian
Memorial sentahly
modified: DDB

Document Originally
Attached to
Following Page

— —

— —

Document of the
American
Library of Congress

2/28

Dr. Bromley,

Your nephew Dana called to leave an address for a school that he is applying to:

Office of Admissions
L.A. Chiropractic College
16200 E. Amber Valley Drive
P.O. Box 1166
Whittier, California 90609-1166

He was sorry to miss you.

Joyclyn

Please dig out
the earlier letter
I wrote
2/3 please see
attached -
Joyclyn