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Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files

OA/ID Number: 62007
Folder ID Number: 62007-002

Folder Title:
D. Allan Bromley - Thank You's [2 of 3] [1991]

Stack:

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Shelf:

Position:

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"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9124289

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: WILLS, George S.

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/27/91

SUBJECT: A THANK YOU FOR TAKING TIME TO MEET WITH BOTH GEORGE
AND MIKE CROMWELL.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

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

COPIES TO: D. Allan Bromley
ENVIRONMENT

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 10/04/91
FILE: P-DAB-TKU

DEPT RECEIVED:

4289

George S. Wills
36 South Charles Street
Baltimore, Maryland 21201

RECEIVED

91 OCT 4 A 9: 26

OFFICE OF THE
DIRECTOR

September 27, 1991

The Honorable Dr. D. Allan Bromley
Assistant to the President for Science
and Technology
Old Executive Office Building
17th Street and Pennsylvania Avenue
Suite 358
Washington, D.C. 20506

Dear Allan:

I know I speak for Mike Cromwell, President and CEO for ManTech Environmental, in expressing appreciation to you for taking the amount of time that you did, yesterday, from your busy schedule. "Busy" is an understatement, and having nearly an hour of time for discussion with you was extremely educational in the both the context of broad policy issues and gaining perspective on specific "case study" types of issues that are challenging the Federal governments's efforts to organize and operate a disciplined environment policy.

I knew that you and Mike would speak from a similar focused and disciplined perspective. He has done an extraordinary job in managing a complex business - one that, as a research organization, makes an important contribution to the EPA's Research and Development division, as well as other assignments that focus on health effects and ecological research.

Your question "how can I help," was an important component of the meeting - and I know that Mike will be very responsive with the specifics of issues wherein he is familiar. These issues are important in and of themselves, but they also will be helpful in your formulation and management of efforts that have marked your leadership as the President's Science Advisor.

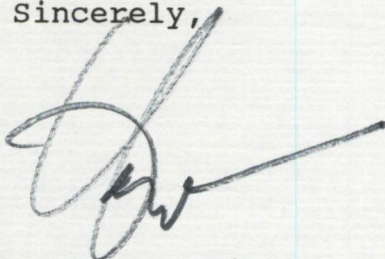
The Honorable D. Allan Bromley
September 27, 1991
Page Two

In summary, we will be back in contact with you and Nancy Maynard, with the specifics and the context in which they will be helpful to you in coordination and policy implementation. The Bush Administration is fortunate to have your realistic approach in working toward a practical and cost-effective environmental policy.

Again, personally, I thank you and it was good to see you again. It certainly helped to bridge the gap since the days at the UNC Board meetings!

All the best.

Sincerely,

A handwritten signature in dark ink, appearing to be 'G. S. Wills', with a long horizontal stroke extending to the right.

George S. Wills

GSW/tw

Copy to: Nancy Maynard

370

TKU

THE WHITE HOUSE
WASHINGTON

September 20, 1991

Dear Laney:

You asked some rather difficult questions, but let me try to give you at least a few brief answers.

Perhaps the most important thing to keep in mind, with respect to your college career, is to keep as many as your options open as possible for as long as possible. Too many people by far narrow their focus much too early in their academic career. With the excellent record that you have already established, it is clear that you can do just about anything that you may wish to in the years ahead and so you should look on college as preparing you for a broad range of possible career paths rather than from any very specific one. From the sound of things, your interests lie in the technical areas with a strong language and perhaps international flavor as well. This, of course, is an excellent total area and one with exciting career possibilities.

Although it may be hard for you to recognize it at the present time, if you are to open fully the possible range of careers, particularly those having a scientific and mathematical component at their core, it will be desirable for you to think in terms of an eventual doctorate in one of the fields.

Although you may wish to mix science, mathematics, and international affairs, it is very definitely the case that you should begin by getting a deep understanding of one of those areas and then moving to add others at a later time. That being the case, it is also very true that your focus initially should be on the science and mathematics because it is much easier to add the foreign languages and the international affairs to a strong foundation in mathematics and science than the other way around.

What I would then suggest would be an undergraduate program that had strong mathematics and science, possibly a science or mathematics major with the choice between them being relatively unimportant. Plus a strong minor in one or more foreign languages with a strong measure of English, history, and perhaps a little political science thrown in. I cannot emphasize how important it is to take advantage of a broad range of activities in your undergraduate program with the focusing occurring in subsequent graduate work. My own preference, of course, would be for a doctorate program in one of the sciences because you then would be preparing yourself either for a career with one of the multinational companies, an area in this society that will be growing rapidly in the years, or in international affairs at the government level, where again, science and technology are, without question, going to play an ever increasingly important role.

You ask then about what schools would be best suited to the kinds of program that you have in mind. Fundamentally, your choices between a college of the Haverford, Swarthmore, Reed variety where you can expect more individualized faculty attention unfortunately, do not have the facilities and experience of the faculty that you would encounter at a major research university. I would suggest a research university because of the greater spectrum of course offerings and the, in general, greater experience and visibility of the faculty unless you feel that you want the more individualized interaction with the faculty that characterizes someplace like Smith if you want an all female environment, or Swarthmore or Haverford or Reed, or one of those similar colleges if you are interested in a co-ed environment. With your background, I would think that it would be entirely reasonable for you to shoot for some place like Princeton, Harvard, Stanford, or Yale, and I would urge one of those on you because of the very real quality that you would expect to find in the faculty and among the researchers with whom you would interact. I would not suggest MIT or CalTech because their focus, I sense, is narrower than what you have in mind.

I would emphasize that in any of the universities that I have suggested it is possible for someone with your record to build essentially a program that is specifically suited to your own wishes and abilities, and there is tremendous flexibility in terms of keeping options open and yet really obtaining a deep understanding of one or more areas of focus. Each of the ones that I have suggested have special attractions in terms of structure, location, student body character, and what-have-you, but you make no mistake in selecting any one of them.

It is worth remembering that Yale is in many ways unique in the entire Nation, with only Rice University in Houston, Texas, coming even close, in that through the structure at Yale you have at one in the same time the social ambiance of the smaller college and yet the resources of a major research university. To the extent that it works, and I believe that it does, Yale is unique in offering you the best of both worlds.

Let me also emphasize that you should not be turned off by the somewhat astronomical tuition and other expenses associated with the universities that I have just mentioned because it is, in fact, the case that all of those universities admit students without reference to their family's ability to pay the stated costs and the universities come up with whatever might be required to augment your family resources and make it possible for you to attend once they have accepted you as a member of the freshman class. I would therefore urge you to try for admission at whatever university or college really appeals to you and, in that sense, it is very important for you to visit at least the ones on the east coast that are in convenient range, to get some sense of the campus atmosphere, the student body, and the general feeling of the place.

If you have some specific questions as you get more closely into the college admission process, then give me a call 202/456-7116 and I would be happy to discuss them with you.

With all best wishes, both to you and to your parents,

Sincerely yours,

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

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

Ms. Laney Baris
Maiden Lane
Durham, Connecticut 06422

HSUS



Laney Baris
Maiden Lane
Durham CT 06422



Honorable Dr. D. Allan Bromley
Assistant to the President (Science and
17th Street and Pennsylvania Ave. Technology)
N.W. 358-20506
Old Executive Office Building
Washington D.C.

20501



Dear Dr. Bromley,

Sept. 2, 1991

Thank-you for taking the time to write to me. It's so nice of you to congratulate me. I would like to ask you a few questions, about my options after high school. Could you please suggest some colleges with strong science, mathematics, and foreign language departments? Also, could you suggest some career options that would encompass these subjects? I would be most grateful if you could answer these questions.

Sincerely,
Laney Baris

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9124737
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: DORSEY-SPITZ, Larry

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/19/91

SUBJECT: A THANK YOU NOTE FOR DR. BROMLEY'S ROLE IN THE
PRESIDENTIAL AWARDS FOR MATH AND SCIENCE TEACHING.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
Damar Hawkins

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: THIS LETTER WAS FORWARDED TO OSTP FROM NSF.

OSTP RECEIVED: 11/12/91 DEPT RECEIVED:
FILE: P-DAB-THANK YOU
CENTRAL FILES:

L Dosey Spitz
8 Ravens Ct.
Pueblo, CO 81005



Journey
to a
New
Frontier..
Collect Stamps



Mr. Allan Bromley
Adm. to President for Science & Technology
c/o NSA- Presidential Awards
3140 North Washington Blvd
2nd Floor
Arlington, VA

22201

Allan,

Saw you on national news
at the Science & Technology recognition
evening. That must have been an
exceptional evening of celebration. I
just wanted to thank you for your
role in the Presidential Awards for
Math & Science Teaching. My wife &
I are both looking forward to our week
in Washington & meeting you. Love, Dosey Spitz

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9122880

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: BLOCK, I. Edward: SIAM

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/24/91

SUBJECT: A THANK YOU LETTER FOR THE PRESENTATION TO THE
ATTENDEES OF ICIAM 91 ON JULY 9.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: Steve Olson
D. Allan Bromley
INTERNATIONAL/POLICY
INDUSTRIAL

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

OSTP RECEIVED: 07/29/91
DEPT RECEIVED:

FILE: P-DAB-TKU

CLOSED



SOCIETY for INDUSTRIAL and APPLIED MATHEMATICS

3600 UNIVERSITY CITY SCIENCE CENTER

PHILADELPHIA, PA 19104-2688

(215) 382-9800

siam@wharton.upenn.edu

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Telex: 446.715

31 JUL 29 410:56

OFFICE OF THE
DIRECTOR

July 24, 1991

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Director of the Office of Science
and Technology Policy
Old Executive Office Building
17th Street & Pennsylvania Ave., N.W.
Washington DC 20506

Dear Dr. Bromley:

Thank you very much for your splendid presentation to the attendees of ICIAM 91 on July 9. Your presentation was well received by an audience that filled the ballroom.

ICIAM 91 was a clear demonstration that there is a world community of applied mathematicians who are concerned with the problems of industry, science, and technology. Approximately 2,175 applied mathematicians from more than 60 countries participated in ICIAM 91. Your presentation was just right for the occasion.

I have asked Steve Olson for a copy of your presentation. We will be doing an article on you for the September issue of SIAM News and will want to quote you extensively. Of course, we will send it to Steve for review before we publish it.

We agree with you that progress towards the greater integration of mathematics with society must come from the mathematical community itself. It will become increasingly important for the mathematician to reach out to engineers and scientists to promote their approaches to real world problem solving. But, it will also be incumbent on the latter to respond.

SIAM, the host society, is entering its 40th year of activity. Other societies similar to SIAM exist or are now being formed in other countries -- CAMS in Canada, SMAI in France, SIMAI in Italy, NORTIM in the Scandinavian countries, CSIAM in China, JSIAM in Japan, ISAM in Israel, and SBMAC in Brazil, as well as the older, established societies -- GAMM in the German speaking countries and IMA in England. Scientists of the Soviet Union must also be thinking along these lines, as evidenced by the attendance of Victor Rusanov (USSR Academy of Sciences) at the meeting of the ICIAM governing body. Indeed, applied mathematics seems to have become a discipline in itself.

Dr. D. Allan Bromley
July 24, 1991
Page Two

I thought you might like to have a copy of the July issue of SIAM News which was distributed at ICIAM 91. I will be sending you a copy of the September issue. Thanks again for your presentation and especially all the time you spent on ICIAM 91.

Sincerely,

A handwritten signature in dark ink, appearing to read "I. Edward Block", with a stylized flourish at the end.

I. Edward Block
Managing Director

Enclosure

cc: Robert E. O'Malley, Jr.
President, SIAM

IEB/db

NSF Geometry Center Takes Shape

By Barry A. Cipra

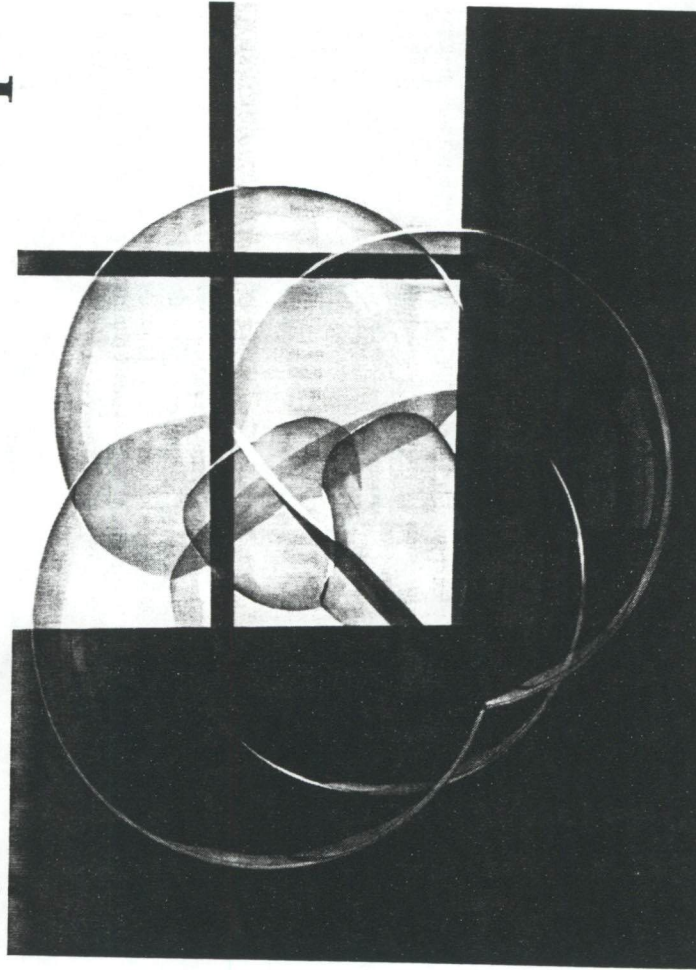
Archimedes, the legend goes, was slain by a Roman soldier while contemplating a geometric figure he had drawn in the sand. His last words: "Don't disturb my circles."

Some things change, others stay the same. Soldiers are as wont to butcher a genius as they ever were. But instead of dying over circles in the sand, the geometer of today is more likely to be slaughtered while pondering color graphics on a computer screen.

Modern geometry is merging with computer technology, to the benefit of both. That trend is apparent at the new NSF Science and Technology Center for Computation and Visualization of Geometric Structures. Based at the University of Minnesota, the center is a far-flung enterprise of mathematicians and computer scientists who envision a synergy between the data-driven palette of computer graphics and the inarticulate reaches of the mind's eye.

The new center, nicknamed the Geometry Center, has been funded to the tune of \$10 million for the next five years, with support coming from the National Science Foundation, the Department of Energy, the Greater Minnesota Corporation, and the University of Minnesota. The center opened officially in May, with inaugural ceremonies that included the premier of the movie short *Not Knot*, a computer-animated tour of hyperbolic space.

The Geometry Center is the offspring of the Geometry Supercomputer Project, which opened for business in 1987. There are 18 principal investigators, collectively called the Geometry Group. The center's director is Albert Marden of the University of Minnesota, and the scientific director is David Epstein of the University of Warwick. A third of the group is from Princeton University: co-director William Thurston, Fred Almgren, Bernard Chazotte,



Computer-generated cluster of soap bubbles floating in front of a window. This cluster is the smallest known example that includes a saddle-shaped surface. Courtesy of John Sullivan of the Geometry Center.

using supercomputers," explains Epstein. That's not to say that the Geometry Group won't go near a Cray. But the fact of the matter is, mathematicians always want to byte off more

than their computers can chew.

"We're continually faced with the problem of designing our algorithms and carefully writ-

Continued on page 23

Computer Scientist at Illinois Wins NSF Waterman Award

existence problems involving finite sets of points, lines, planes, and hyperplanes (A 1991)

New BMS Report Sees Key Role for Math in Economic Competitiveness

"Operations researchers have published lots of first-class research papers, but they didn't get JIT [just-in-time inventory control] to the floor of U.S. industry." The comment, made on May 7 at the National Academy of Sciences during the symposium held to release the latest report from the Board on Mathematical Sciences, encapsulates some of the report's major themes.

The report, *Mathematical Sciences, Technology, and Economic Competitiveness*, edited by James Glimm of the State University of New York at Stony Brook, builds on the assumption that advanced technology is vital to the economic competitiveness of a nation. Few SIAM members, says Philip Davis in his review of the report (page 6), would disagree with the extension of that assumption: The mathematical sciences are vital to all aspects of the product cycle and, therefore, to economic competitiveness. The transfer of technology from researchers in the mathematical sciences to engineers in industry, a central theme of the report, is discussed from several perspectives—the difficulties of accomplishing it, examples of notable successes (balanced by the details of a few failures), and the lack of motivation for the mathematical sciences community to get involved in it.

U.S. Industries Rely on Math Sciences Throughout the Product Cycle

The report makes a strong case for the contributions of quantitative reasoning and mathe-

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9122670
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: LANGENBERG, Donald N.: UNIVERSITY OF MARYLAND SYSTEM

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/22/91

SUBJECT: A THANK YOU FOR PARTICIPATION IN LANGENBERG'S
INAUGURATION FESTIVITIES, BOTH THE LUNCHEON SPEECH
AND THE REMARKS AT THE CEREMONY ITSELF.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
Steve Olson

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

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OSTP RECEIVED: 07/24/91 FILE: P-DAB-TKU
DEPT RECEIVED:

2670

UNIVERSITY OF MARYLAND SYSTEM

OFFICE OF THE CHANCELLOR

Adelphi, Maryland 20783
(Main Office) (301) 853-3601



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Baltimore: (301) 328-7000
Annapolis: (301) 974-2186
91 JUL 24 8 55

OFFICE OF THE
DIRECTOR

July 22, 1991

Dr. D. Allan Bromley
Assistant to the President for Science and Technology
Old Executive Office Building
17th Street and Pennsylvania Avenue, NW
Washington, DC 20506

Dear Allan:

Just a note to tell you how deeply I appreciated your participation in my inauguration festivities. Your luncheon speech was very well received----a great many of the business leaders present have told me it made a strong impression on them.

Your remarks at the inauguration ceremony itself were equally impressive. I hope your listeners will not soon discover that you were perhaps a little overgenerous. In any case, I'm truly grateful for the central role you played in the occasion.

If ever my eighteen thousand colleagues of the University of Maryland System or I can be helpful to you, I hope you will let me know.

With best wishes,

Donald N. Langenberg
Chancellor

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9122651
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: WHEELER, Daniel S.: THE AMERICAN LEGION MAGAZINE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/19/91

SUBJECT: A THANK YOU FOR GRANTING THE MAGAZINE AN INTERVIEW,
"HI-TECH: CAN AMERICA MAINTAIN ITS EDGE?" AND COPIES
OF THE ISSUE.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
Sarah Keegan
INDUSTRIAL

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS: *Enclosures to all.*

CLOSED

OSTP RECEIVED: 07/23/91
DEPT RECEIVED:

FILE: P-DAB-~~EDITORIAL~~ ^{TKU} *P-IND-ECON COM

2651



P. O. BOX 1055 • INDIANAPOLIS, INDIANA 46206-1055 • (317) 635-8411
OFFICE OF THE PUBLISHER/EDITOR IN CHIEF

July 19, 1991
97-7

The Honorable D. Allan Bromley
Assistant to the President
Office of Science & Technology Policy
Old Executive Office Building
17th & Pennsylvania Streets, N.W.
Washington, D.C. 20506

Dear Mr. Bromley:

Enclosed are three copies of our most recent issue containing your interview, "Hi-Tech: Can America Maintain Its Edge?," which was conducted by James N. Sites. We're sure our readers will find it most informative.

Thank you for taking time from your busy schedule to grant us the interview, and please extend our appreciate to your staff for their cooperation in getting all the material finalized.

Sincerely yours,

A handwritten signature in dark ink, reading "Daniel S. Wheeler". The signature is fluid and cursive.

DANIEL S. WHEELER
Editor in Chief

Enclosures (3)

OFFICE OF THE
DIRECTOR

91 JUL 23 P 2:45

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THE AMERICAN LEGION

FOR GOD AND COUNTRY

August 1991

1992
VA BUDGET
Page 18

THE WAR ON STANDARDS

Pop Culture
Challenges
Traditional
Values



"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9122427

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: YANG, Henry T.: PURDUE UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/15/91

SUBJECT: A THANK YOU FOR MEETING WITH HIM IN MARCH AND A COPY
OS SHORT DESCRIPTIONS OF THE SUCCESS OF SEVEN ERCs.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
INDUSTRIAL
INTERNATIONAL/POLICY

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

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OSTP RECEIVED: 07/19/91
DEPT RECEIVED:

FILE: P-DAB-TKU

PURDUE UNIVERSITY



2427
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91 JUL 19 A10:05

SCHOOLS OF ENGINEERING

OFFICE OF THE
DIRECTOR

July 15, 1991

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

Dear Dr. Bromley:

Thank you for your kindness in meeting in March with me and five other engineering deans of universities having Engineering Research Centers funded by the National Science Foundation. We are indeed honored and grateful.

We all appreciated your assessment of the attitude in Congress toward funding ERCs and other scientific and engineering research ventures. We have taken your advice to heart and visited with Dr. Walter Massey. We are approaching key legislators and a few NSB members, and we are seeking the advocacy of important partners in industry and business. In May I testified on behalf of ERCs before the Senate.

In addition, I am enclosing short descriptions of the success of seven ERCs—those at Carnegie Mellon, Colorado, Columbia, Duke, Lehigh, Minnesota, and Purdue. Thank you for this suggestion. These stories illustrate the significant educational, research, industrial, and commercial benefits that ERCs have provided to our great nation.

I and the other ERC deans look forward to working with you in the future. Thank you for your continued encouragement and leadership.

Sincerely,

A handwritten signature in cursive script, appearing to read "x/ewy".

Henry T. Yang
Dean

HTY:sk

cc: Dr. Walter Massey
Dr. John White
ERC deans

**Engineering Design Research Center (EDRC)
Carnegie Mellon University
Pittsburgh, Pennsylvania**

The Engineering Design Research Center at Carnegie Mellon University aims to develop advanced design methodologies to reduce the design-to-product cycle, and to build flexible, domain-independent design environments to integrate quantitative and qualitative methods for design optimization. The EDRC operates from the premise that design practice can: (1) improve dramatically at an early stage by applying formal methodology that enables designers to anticipate life-style concerns, (2) generate and select design alternatives automatically, and (3) develop systems that are easy to learn, use, and modify.

The EDRC is affiliated with more than 40 industrial companies, who provide more than half its financial support. The collaboration has led to many breakthroughs, including one that revolves around the classic "Travelling Salesman Problem."

Joseph Pekny, a former Carnegie Mellon Ph.D. candidate in chemical engineering and member of the EDRC (now assistant professor of chemical engineering at Purdue), was a visiting scientist at duPont Central Research and Development. He worked with duPont's parallel processing group on parallel combinatorial methods.

During his stay at duPont, Pekny met Don Miller, with whom he co-authored an original algorithm for solving the Assymetric Travelling Salesman Problem (ATSP). The algorithm of Pekny and Miller solved problems larger than existing algorithms did. Based on this initial breakthrough and the promise of further success, duPont management decided to send Miller to the EDRC for nine months—along with a BBN Butterfly parallel processing computer.

In May 1989, the EDRC/duPont algorithm was activated for field use to replace previous heuristic algorithms for sequencing problems. Seven months later, duPont was able to address planning and scheduling problems by building a set of optimization tools and expert systems with a common decision support package. Key to this package was the travelling salesman solution procedure developed in conjunction with the EDRC.

The scheduling decision support package was adopted in approximately 35 businesses encompassing 8 plants worldwide. Annual cost savings documented in November 1989 were on the order of \$25 million.

Optoelectronics Computing Systems Center University of Colorado Boulder, Colorado

The Optoelectronics Computing Systems Center at the University of Colorado at Boulder and the Colorado State University at Ft. Collins focuses on optical computing systems that take advantage of the inherent speed, connectivity, or parallelism of light. There are three systems programs within the Center: (1) The Digital Optical Computer Program, (2) the Optical Connectionist Program, and (3) the Optical Signal Processing Program. These are supported by a materials and devices program. The Center's mission includes the rapid transfer of the results of its research to private industry.

One example of the systems research in the Center is the Digital Optical Computer Program's research into the use of photons as the computing fluid in a serial digital computer. This concept uses "Speed-of-Light Latchless Architectures" in which the basic information quanta, the bit, is represented by a pulse of light continuously moving through the logic elements of the computer or through optical fibers. These pulses, travelling at the speed of light, cannot be "captured" and stored as conventional computers store bits in a memory chip. The computer functions by switching streams of light pulses from one fiber to another.

Optical computing hardware can operate on multiple data streams by time division multiplexing these separate streams into one stream of optical pulses. When such multiplexing occurs, it becomes necessary to interchange information occurring in one time slot with that occurring in another. This is the classical "time-slot interchange" problem—that is, one wants to exchange any of N input time slots with any of N output slots. For instance, if there are 1000 time slots in a stream, we may wish to take the information appearing in, say, slot number 35 of the input stream and have this information appear in slot 48 of the output stream.

The classical design of a time-slot interchange system requires $3N$ switches; therefore, to interchange 1000 time slots requires 3000 switches. The cost of these switches for a high-speed electronic interchanger is relatively modest. However, for an all-optical interchanger the cost is prohibitive—if the interchanger uses lithium niobate switches, today's cost of the interchanger's switches is more than \$3 million.

A graduate student working in the Digital Optical Computer Program at the Center invented an elegant switch configuration for a "perfect shuffle" time-slot interchanger. (A "perfect shuffle" between two data streams interposes a time-slot from one stream between each adjacent time-slot of a second stream.) This discovery has been extended to allow any arbitrary interchange. Utilizing this invention, an interchanger can be built with only $(2\log_2 N) - 1$ switches. Thus for $N=1024$, only nineteen switches are needed. The switch cost for this 1000x1000 all-optical interchanger is then roughly \$25,000. U.S. Patent applications covering this and related inventions have been filed.

This discovery, while applicable to today's electronic time-slot interchangers, will find many applications as optical systems become commonplace in the communications and computer industries.

**Center for Telecommunications Research (CTR)
Columbia University
New York, New York**

The Center for Telecommunications Research supports research, education, industrial collaboration, and technology transfer in the area of integrated telecommunications networks for multimedia information movement and management. The CTR enjoys the active support and participation of 25 companies with whom it regularly interacts to share ideas, formulate policy and research plans, collaborate on specific projects, and transfer research innovations for subsequent commercial development. Industrial guidance of CTR activities is formalized through its Industrial Advisory Board and Telecommunications Engineering Advisory Council.

It was through the Advisory Board that one of CTR's most visible successes—Project ACORN—was initiated in late 1989. ACORN is a jointly defined collaborative research activity targeted toward the lightwave network of the 21st century. Industrial participants include AT&T, Bellcore, GTE, IBM, MCI, NEC, Northern Telecom, NYNEX, Philips, Southwestern Bell, and Teleport. In addition to project-specific funding, industrial support involves committed manpower and device technologies.

The first phase of ACORN involves exploration of lightwave network architectures and devices, network management strategies for multimedia traffic, HDTV, medical imaging, and supercomputing applications. Also included in this first phase is a laboratory implementation and feasibility demonstration. The second phase will consist of a wide-area field experiment involving leading-edge telecommunications users. Students at all degree levels are involved in ACORN testbed activities.

ACORN is intended to explore approaches for unleashing the huge capacity potential of optical networks. It builds upon the notion of the "optical ether": just as the air waves carry a variety of electromagnetic signals, each on a unique radio channel, the "optical ether" would support many optical channels, each using a different color of light, and each moving information at a rate of 1 gigabyte per second between geographically separated network access nodes. At the nodes, electronic circuitry would route, process, store, and relay information.

Robert Pfeffer, vice president of fiber systems at BNR, says: "ACORN represents an essential investment in the search for future technology to expand the capability, capacity, and benefits of today's technology." Paul Henry, director of communications systems research at AT&T Bell Laboratories, says: "ACORN is an exciting research effort in light-wave communication networks and, in addition, students benefit from timely exposure to an important field."

Two network access nodes have been fabricated, and rudimentary communication has been established using an optical star coupler with subcarrier optical modulation. Control software is now being installed on the access nodes, along with wavelength multiplexing equipment. Design of terminal adapters has begun to interface advanced workstations and HDTV equipment, and will support High Performance Packet Interface (HIPPI) and Asynchronous Transfer Mode (ATM) data formats. Resource allocation and fault management strategies are under study, and the field experiment is scheduled to begin in early 1992 using facilities provided by one of the industrial participants.

**Engineering Research Center (ERC)
for Emerging Cardiovascular Technologies
Duke University
Durham, North Carolina**

The Duke-North Carolina National Science Foundation/Engineering Research Center for Emerging Cardiovascular Technologies promises to enhance U.S. competitiveness by developing a new generation of cardiovascular interventional and imaging systems (antiarrhythmic systems, three-dimensional ultrasonic imaging machines, magnetic resonance microscopes, and vascular interventional systems). Potential markets for these deliverables are projected at \$3 billion to \$8 billion per year. Researchers who developed the first phased array ultrasound scanner upon which today's cardiac ultrasound instrumentation is based (a billion-dollar-per-year industry) are now developing three-dimensional real-time ultrasound imaging systems. Because of the focused interdisciplinary efforts of the ERC, this technology will be developed and marketed at a significantly faster pace.

The ERC integrates engineering researchers and students from five universities (Duke, North Carolina State, North Carolina-Chapel Hill, Case Western, New Mexico State) with industrial investigators into active, interdisciplinary research programs to accomplish its goals. These are: (1) to demonstrate the scientific and technological feasibility of a new generation of cardiovascular interventional and imaging systems; (2) to accelerate the direct transfer of research discoveries from university laboratories to industry for technology development; and (3) to improve engineering educational programs by requiring substantive interactions between engineering students and industrial investigators.

To achieve its goals, the ERC requires \$9 million a year which is provided by: (1) NSF support of \$3.0 million per year for basic engineering science research and education; (2) industrial, university, state, and NIH/ERC supplementary support of \$3.5 million per year which is also primarily for basic engineering science research and education, and directly leverages the NSF engineering award; and (3) NIH/ERC complementary funding of \$2.5 million per year which supports the biomedical hypothesis testing and validation essential for the development of emerging cardiovascular technologies. Industry's support of the ERC's educational program has been particularly gratifying, as more than one-third of industrial support has been designated for education.

**Engineering Research Center for
Advanced Technology for Large Structural Systems (ATLSS)
Lehigh University
Bethlehem, Pennsylvania**

The mission of the Advanced Technology for Large Structural Systems Center is to serve as a national focal point for research involving the design, fabrication, construction, and operation of large structural systems such as bridges, buildings, and offshore structures.

Two early examples of effective collaboration among industry, government, and the university are the Corrosion Coulometer (patent pending) and the Bridge Fatigue Investigator©. Both projects address the needs of our crumbling bridge infrastructure through the application of advanced technology.

The Corrosion Coulometer is a monitoring device that uses an electrical device to measure the rate of corrosion of steel bridges. The original goal was to provide early warning of severe corrosion on existing steel bridges, allowing bridge engineers sufficient time to implement remedial measures and avoiding costly shutdowns or even loss of life. Through the participation and additional financial support of the American Iron and Steel Institute, the concept was expanded to utilize the monitor as a predictive tool to evaluate a specific site for corrosion performance of weathering steel. The monitor has been field-tested in three states and is now being considered for a demonstration project by the Federal Highway Administration.

The Bridge Fatigue Investigator© (BFI) is a knowledge-based computer software system intended to help practicing bridge inspectors in the inspection and evaluation of steel bridges, especially those susceptible to fatigue cracking and distress. The knowledge contained in BFI was compiled from several sources, including technical literature, case studies, and interviews with Dr. John W. Fisher, Director of ATLSS, who is a noted expert in fatigue and fracture of steel bridges. A project team of leading industry, federal, and state transportation engineers and inspectors has been working with ATLSS researchers to develop BFI into a practical field tool and to transfer the technology to practice.

In both projects, a cross-disciplinary research team has been developed and expanded to transfer the technology. The early involvement of industry and government users of advanced technology is critical to effective implementation. This team approach is a major advantage of an Engineering Research Center such as ATLSS.

**Center for Interfacial Engineering
University of Minnesota, Twin Cities
Minneapolis, Minnesota**

At the Center for Interfacial Engineering, teamwork between industry, government, and the University of Minnesota led to the development of an environment-friendly polyurethane foam system.

Stanley L. Hager, Visiting Industrial Professor and member of the research staff of Union Carbide Chemicals and Plastics Co., Inc., along with University of Minnesota Professor Chris Macosko, developed a program to utilize a video microscopy technique developed by Professor Macosko's group. The technique was used to study the interface when the two components of the polyurethane foam system are brought together. In this study, it was unexpectedly discovered that placement of the surfactant in either the isocyanate or the resin polyol governed whether the isocyanate exploded into the resin polyol or the resin polyol exploded into the isocyanate as one brought the interfaces together under the microscope slide. This discovery was integrated into the program described below.

When Dr. Hager returned to Union Carbide from his visiting professorship, he was appointed leader of a multidisciplinary team to develop a new polyurethane foam system with the targets of improved physical properties and chlorofluorocarbon elimination. To accomplish this step-change in technology, it was necessary to go back to the fundamentals. As the leader, Hager introduced the group to the principle described above as well as other more subtle learnings developed at the Center for Interfacial Engineering. He later coupled it with a key chemical discovery to develop a reduced chlorofluorocarbon system that is now called Geolite™. For example, Geolite™ Modifier 90 is a softening/stabilizing additive whose technology offers a novel way to eliminate or substantially reduce the use of chlorofluorocarbons or alternative blowing agents in many grades of conventional slabstock foam.

The Geolite™ system (U.S. patent No. 4,950,694) has received positive responses from environmentalists and is being sold successfully around the world. In addition, the Urethane Additives groups at Union Carbide have tentative plans to expand on the program at the Center for Interfacial Engineering to determine whether further discoveries can be made in this fundamental program.

**Engineering Research Center (ERC)
for Intelligent Manufacturing Systems
Purdue University
West Lafayette, Indiana**

The Engineering Research Center for Intelligent Manufacturing Systems at Purdue University was one of the first group of ERCs established in 1985. Focusing on advanced technology for discrete parts manufacturing (which contributes approximately \$400 billion annually to the gross national product), the ERC has demonstrated that a research partnership between private companies and a university, supported by the National Science Foundation, can serve the needs of all.

The research carried out at the ERC is all cross-disciplinary and is oriented toward the specific needs of industry. About 50 companies have collaborated in the ERC. In addition to leveraging the funding from the NSF for highly cost-effective financing of research, the facilities, expertise, and guidance provided by industry enable the ERC to attack large-scale, realistic problems that could not otherwise be addressed at a university. The experience provided to students in dealing with the "real" problems is invaluable in preparing them to assist in the challenge of competitiveness faced by American industry.

Examples of the ERC's technological advances include a Quick Turnaround Cell for rapid production of one-of-a-kind machine parts, a high-level computer modeling system to support product design and analysis, process models for improved control of several types of manufacturing processes, a very responsive and flexible material handling system with sophisticated traffic control, and basic theory and methodology for planning and control of assembly operations. All of the projects follow a ten-year strategic plan leading to an integrated demonstration of the world's first Intelligent Manufacturing System by 1995.

Along with many technical advances, the ERC research has provided new approaches to product design, manufacturing process control, and system integration. The pace and quality of technology transfer have been improved by the unique mechanisms for interaction between the university and industry. The ERC has permanently changed the culture of the university and also promoted changes in industry that encourage innovation.

By any measure, the Purdue ERC has been a successful experiment as evidenced by the reports of several independent site visit teams and the continuing support of the industrial partners. It is unlikely that any of this work would have been attempted without the specific impetus of the ERC program.

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9122423
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: ROBERTS, Margaret: CENTER FOR NATIONAL PROGRAM EVALUATION

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/15/91

SUBJECT: A THANK YOU FOR PARTICIPATING IN THE SPACE STATION
CONGRESSIONAL BREAKFAST SERIES AND SPEAKING.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES

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

REMARKS:

CLOSED

OSTP RECEIVED: 07/19/91
DEPT RECEIVED:

FILE: P-PS-SPACE*P-DAB-TKU

242

CENTER for NATIONAL PROGRAM EVALUATION

RECEIVED

91 JUL 19 A10:05

OFFICE OF THE
DIRECTOR

July 15, 1991

Dr. D. Allan Bromley
The Assistant to the President
for Science and Technology
Old Executive Office Building
Room #358
Washington, DC 20506

Dear Dr. Bromley:

On behalf of the Center for National Program Evaluation, I would like to extend an enthusiastic thank you for your participation in our Space Station Congressional Breakfast Series. We were honored to have you as our guest speaker to address a topic of such great national interest and concern.

As the debate continues over the merits of manned space and Space Station Freedom, it is imperative that accurate information regarding the program is available to our lawmakers. It is in this capacity that the Breakfast series provides a forum for discussion. We very much appreciate your significant contribution to this endeavor.

Sincerely,

Margaret Roberts

Margaret Roberts
CNPE

NORTHWESTERN

UNIVERSITY

OFFICE OF THE PRESIDENT

Have Arnold
10/18

July 8, 1991

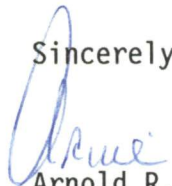
Dear Dr. Bromley:

We were delighted you could be with us for Northwestern's Commencement ceremony on June 22. It was a memorable occasion, from a number of respects, and your distinguished presence contributed significantly to the festivities of the day.

We were sorry, however, that you were unable to join us for the luncheon following the ceremony, where each honorary degree recipient was given a medallion as a memento of the occasion. We have enclosed the medallion herewith and apologize for not being able to present it to you personally.

Please accept this token of our appreciation with our thanks for participating in a very important day in the life of the University.

Sincerely,



Arnold R. Weber
President

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Old Executive Building, Room 360
17th Street and Pennsylvania Avenue, N.W.
Washington, D. C. 20506

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121980

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: MCGOWAN, George V.: CHAIRMAN, BOARD OF REGENTS, UNIV OF
MARYLAND SYSTEM

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/01/91

SUBJECT: THANK YOU FOR PARTICIPATION IN THE INAUGURATION OF
CHANCELLOR LANGENBERG.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley

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

CLOSED

OSTP RECEIVED: 07/05/91
DEPT RECEIVED:

FILE: P-DAB-TKU



RECEIVED

UNIVERSITY OF MARYLAND

91 JUL 3 9:50

OFFICE OF THE BOARD OF REGENTS

July 1, 1991
OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Special Assistant to the President
in Science and Technology
The White House
1600 Pennsylvania Avenue
Washington, D. C. 20500

Dear Allan:

In my official capacity as Chairperson of the University of Maryland System Board of Regents, I want to thank you for your participation in the inauguration of Chancellor Langenberg. I also want to offer my personal thanks for helping make this a very special occasion for a very special man.

You added a most important dimension to the inaugural ceremony. By noting some of Don's activities in Washington and by bringing greetings from President Bush, you underscored the Chancellor's message that our aspirations are national, indeed international.

You were especially gracious to join with us for lunch and offer some thoughts on the importance and evolution of partnerships among government, industry and academe. Many people commented afterward on how much they enjoyed your wit, as well as your wisdom.

I enjoyed seeing you again and having a chance, albeit brief, to chat with you at lunch. Thanks, again, for helping make Don's inauguration a glorious and auspicious occasion.

Sincerely,

George V. McGowan
Chairman
Board of Regents
University of Maryland System

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121932

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: SWARD, Marcia P.: THE MATHEMATICAL ASSOCIATION OF AMERICA

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 06/26/91

SUBJECT: A THANK YOU FOR SERVING AS HOST OF THE CEREMONY
CELEBRATING THE WINNERS OF THE TWENTIETH USA
MATHEMATICAL OLYMPIAD.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

CLOSED

OSTP RECEIVED: 07/01/91
DEPT RECEIVED:

FILE: P BROMLEY ~~CORRESPONDENCE~~-TKU



The MATHEMATICAL ASSOCIATION of AMERICA

1529 Eighteenth Street, N.W. ■ Washington, D.C. 20036 ■ Telephone (202) 387-5200
Marcia P. Sward, Executive Director

9121932
91 JUL 1 4 9:12

OFFICE OF THE DIRECTOR June 26, 1991

Dr. D. Allan Bromley
Office of Science and Technology Policy
Executive Office of the President
The White House
Washington, DC 20500

Dear Dr. Bromley:

The Mathematical Association of America greatly appreciated and felt it an honor that you were willing to serve as host of the ceremony celebrating the winners of the Twentieth USA Mathematical Olympiad. The reception and dinner at the Department of State was a magnificent culmination of the events honoring these exemplary students.

Team members for the International Olympiad competition have been chosen and they are the six, with the exception of J.P. Grossman, who will be competing for Canada, who were honored here in Washington. Sigtuna, Sweden is the site for this year's competition which will take place on July 17 and 18. As soon as results are confirmed, I will let you know how the US team placed.

Once again, thank you so very much on behalf of the mathematical community for assisting in recognizing these young talented individuals who are this country's strength and future resource.

Sincerely,

Marcia P. Sward

Marcia P. Sward
Executive Director

"CORRESPONDENCE TRACKING"

TYPE: Information

DOCUMENT NUMBER: 9121752

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: STURGES, Claudia J.: Manager, AAAS/EPA Fellowship Program

TO: DR. D. ALLAN BROMLEY

DATE OF
CORRESPONDENCE: 06/11/91

SUBJECT: THANK YOU FOR DELIVERING AN ADDRESS TO THE 1991
FELLOWS OF THE AAAS/EPA ENVIRONMENTAL SCIENCE AND
ENGINEERING FELLOWSHIP PROGRAM.

DIRECTORATE

STAFF

ASSIGNED: D. Allan Bromley

ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT:

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 06/14/91
DEPT RECEIVED:

FILE: *10 DAB - Thank you * Environment*

American
Association
for the Advancement of
Science

Directorate for Science and Policy Programs
1333 H Street, NW, Washington, DC 20005
(202) 326-6600 FAX (202) 371-9526

RECEIVED

91 JUN 14 P 5:00

OFFICE OF THE
DIRECTOR

June 11, 1991

Dr. D. Allan Bromley
Assistant to the President for Science and Technology
White House Office of Science and Technology Policy
Old Executive Office Building
Room 358
Washington, DC 20500

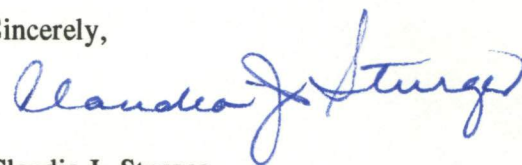
Dear Dr. Bromley:

On behalf of the AAAS/EPA Environmental Science and Engineering Fellowship Program, I want to thank you for taking the time to address the 1991 Fellows during their recent orientation program. This broad exposure to the environmental aspects of the Washington scene will serve them well as they begin their fellowships at EPA.

Now the Fellows are hard at work on their research projects. The 10 weeks will pass quickly, and we will invite you to the presentation of their research papers at EPA in early August.

Thanks, again, for your participation!

Sincerely,



Claudia J. Sturges
Manager
AAAS/EPA Environmental Science &
Engineering Fellowship Program

CJS/cm

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121531

FROM: PRESS, Frank: NATIONAL ACADEMY OF SCIENCES

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/22/91

SUBJECT: A THANK YOU FOR THE PHOTOGRAPHIC MEMENTO OF THE
PRESIDENT'S ADDRESS TO THE MATHEMATICS ASSESSMENT
SUMMIT.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/28/91

FILE: *P- DAB-* THANK YOU

9121531

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE, NW WASHINGTON, D. C. 20418

91 MAY 28 12:36

OFFICE OF THE PRESIDENT

OFFICE OF THE
DIRECTOR

May 22, 1991

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Director, Office of Science
and Technology Policy
Room 360, OEOB
Washington, D.C. 20506

Dear Allan:

Many thanks for the photographic memento of the President's address to our Mathematics Assessment Summit. As in previous Presidential visits, we owe a great deal to your help in bringing about this visit, which had a great impact on the participants. With appreciation and warm regards.

Yours sincerely,



Frank Press
President

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121458

FROM: MACLACHLAN, Alexander: DU PONT RESEARCH AND DEVELOPMENT

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/14/91

SUBJECT: A THANK YOU FOR YOUR COMMENTS AT THE LAVOISIER MEDAL
CEREMONY, AND A CONTINUING REQUEST TO VISIT THEIR
RESEARCH FACILITIES IN WILMINGTON.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Steve Olson
INDUSTRIAL

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/17/91

FILE: INDUSTRIAL*THANK YOU

10-1413



DUPONT RESEARCH AND DEVELOPMENT
Wilmington, DE 19898

SENIOR VICE PRESIDENT

RECEIVED

91 MAY 17 A 9:08

May 14, 1991

OFFICE OF THE
DIRECTOR

Dr. Allan D. Bromley
Office of Science Technology & Policy
Executive Office of the President
17th & Pennsylvania Avenues N.W.
Washington, DC 20506

Dear Allan:

All of us in Du Pont are most appreciative of your outstanding comments at our Lavoisier Medal ceremony. Your clear understanding of the major technological competitive issues facing our country was constantly evident and reassuring to those of us who are concerned. It's important for us to feel our top government officials are getting such good council.

As a member of one of the few U.S. industries that still has a strong balance of trade, we nevertheless worry about our future and the future of U.S. industries already in trouble. The list of critical technologies that your group and others have recently made available are not mere academic chips that should be allowed to fall where they may. If we should lose more and more ability to excel or have access to them, as you said, we do not have a very bright future. I hope our government will continue to look for ways that might galvanize U.S. industries to do more R&D and effective development of leading-edge critical technology areas. Sometimes it appears we are more interested in delving into new areas of mischief rather than thinking through substantive systemic support approaches. One of my colleagues at Du Pont recently told me of the debate around charging industry for use of such government facilities as synchrotron beam lines. Industry already had invested heavily in the analytical technologies to use such capabilities because of agreements to gain free time. This kind of behavior does not lead to a lot of trust or collaborative risk taking.

Dr. Allan D. Bromley

- 2 -

May 14, 1991

We are still very anxious to have you and any of your staff members who are interested visit our research facilities in Wilmington. We can promise you an interesting day and would be glad to tailor a program to your liking.

Thanks again. We all enjoyed meeting you and the luster you added to our Lavoisier ceremony was invaluable. I hope to see you again soon.

Very truly yours,

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

Alexander MacLachlan

AM:jmp

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121452

FROM: CERJAN, Paul G.: DEPARTMENT OF THE ARMY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/14/91

SUBJECT: A THANK YOU FOR HOSTING THE VISIT OF THE ARMY WAR
COLLEGE STUDENTS.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Dr. Phillips
Tom Ratchford
Tom Welch

Michelle Van Cleave
John O'Neil

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/17/91

FILE: THANK YOU

P-DAB



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
UNITED STATES ARMY WAR COLLEGE
CARLISLE BARRACKS, PENNSYLVANIA 17013-5050

May 14, 1991



Office of the Commandant

Honorable D. Allan Bromley
Assistant to the President
for Science and Technology
Office of Science and Technology Policy
Old Executive Office Building, Room 360
725 17th Street, NW.
Washington, DC 20506

Dear Dr. Bromley:

On behalf of the U.S. Army War College Faculty and Class of 1991, thank you for hosting a most interesting and educational visit for our students on April 17, 1991.

The opportunity for the Army War College students to be able to sit down and discuss the shaping of national and international policies with such a distinguished group of leaders as Drs. William Phillips, Tom Ratchford, Thomas Welch, and Ms. Michelle Van Cleave was clearly the key to the program's resounding success. The presentations were all outstanding and contributed immensely to our faculty and students' understanding of the role which the Office of Science and Technology Policy plays in the national security policy process. For such senior-level professionals to participate in this important adjunct to our curriculum is a true indication of your commitment to the education of our future military and civilian leaders.

Please convey to all the participants both our thanks and recognition of the sacrifice involved in taking time from their busy schedules to meet with us. The time and effort spent by Colonel John O'Neil to provide a quality program was very apparent, and we would like to recognize and commend Colonel O'Neil for his excellent arrangement and orchestration of the program.

We hope we can count on your continued support for this important program in future years.

Sincerely,

Paul G. Cerjan
Major General, U.S. Army
Commandant

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121429

FROM: BLANCO, Christine: CORETECH

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/14/91

SUBJECT: A COPY OF THE MEMO REFERENCED IN DR. ROLAND
SCHMITT'S LETTER OF 05/10/91 WHICH WAS NOT MAILED
WITH THE 05/10/91 CORRESPONDENCE

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
LIFE SCIENCES

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS: Please cross reference with #9121408.

DATE RECEIVED: 05/14/91

FILE: THANK YOU

P-DAB-

9121429

CORETECH COUNCIL ON RESEARCH AND TECHNOLOGY

Kenneth R. Kay
Executive Director
(Preston Gates Ellis
and Rouvelas Meeds)

Dr. Roland W. Schmitt
Chairman
(Rensselaer Polytechnic
Institute)

Dr. Virginia V. Weldon
Vice-Chair
(Monsanto Company)

Dr. Stanley Ikenberry
Vice-Chair
(University of Illinois)

Grant A. Dove
Vice-Chair
(Microelectronics and
Computer Technology
Corporation)

J. Richard Iverson
Vice-Chair
(American
Electronics
Association)

Peter F. McCloskey
Secretary
(Electronic Industries
Association)

Irene Jacobs
Treasurer
(Digital
Equipment
Corporation)

Dr. Joseph A. Saloom
Founding Chairman
(M/A COM, Inc.)

RECEIVED

MAY 14 4:46

OFFICE OF THE
DIRECTOR

5/14/91

Dr. Bromley:

It has come to my attention that an enclosure to Dr. Roland Schmitt's letter of May 10, 1991 was not mailed with the letter.

You will find the memo referenced in the May 10 letter enclosed. My apologies for the confusion.

Sincerely,
Christine Blanco
(CORETECH staff member)

POWELL, GOLDSTEIN, FRAZER & MURPHY

ATTORNEYS AT LAW

SUITE 800
900 CIRCLE 75 PARKWAY
ATLANTA, GEORGIA 30339
404 951-5800

SIXTH FLOOR
1001 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20004
202 347-0066
TELEX 650 2510 330
TELECOPIER 202 624-7222

ELEVENTH FLOOR
THE CITIZENS & SOUTHERN NATIONAL BANK BUILDING
35 BROAD STREET, N.W.
ATLANTA, GEORGIA 30335
404 572-6600

SUITE 1050
400 PERIMETER CENTER TERRACE
ATLANTA, GEORGIA 30346
404 399-2800

M E M O R A N D U M

TO: Robert E. Grady
Associate Director, Natural Resources, Energy and
Science, Office of Management and Budget

FROM: Council on Research and Technology (CORETECH)
Stuart E. Eizenstat *SE*

DATE: February 28, 1990

SUBJECT: CORETECH Recommendations on University and Independent
Non-Profit Research Facilities

Thank you for our recent meeting concerning CORETECH's recommendations for future funding of the National Science Foundation and the Federal role in university and independent non-profit research facilities. We are heartened by the Administration's sustained support for the Foundation and by your personal interest in the issues surrounding the unmet research facilities needs of universities and non-profit research institutions. As we mentioned at our meeting, CORETECH is committed to funding the matching grant facilities modernization program. This memorandum responds to your request for further information on one aspect of a balanced Federal investment strategy for facilities: modernization of the facility provisions (use allowance and depreciation) of the costing principles for research embodied in OMB Circular A-21 and, for non-profit research institutions, A-122.

We understand that, as a result of a meeting on January 19 between Morgan Kinghorn and his staff with representatives of universities, serious discussions shortly will begin between working groups representing the government and universities on a set of related issues in Circular A-21 that will include the issues addressed in this memorandum. This is an important development. We hope you will support these discussions and encourage those participating in them for OMB to consider CORETECH's endorsement of the proposals concerning the use allowance and depreciation provisions of the Circular in the context of these discussions.

Mr. Robert E. Grady
February 28, 1990
Page 2

Background on A-21

Since the end of World War II, the Federal government has been, and will remain, the nation's primary source of investment in academic research. Federal funds, often in partnership with State, university, and private funds, have built the world's preeminent academic research enterprise; it undergirds our economy and our national security. If we hope to maintain a position of world leadership in science, graduate education, and technology, we must sustain the Federal commitment to excellence in research and graduate education. We, therefore, are pleased by the Administration's commitment to growth and excellence in Federal academic research programs.

Federal investment is made primarily in the form of competitively awarded, merit-based grants, awards which include support for the direct and indirect costs of Federal programs, including researchers, graduate students, equipment, and, in the past, investment in the construction and modernization of academic research laboratories.

Since the late 1960's, Federal investment in physical infrastructure for Federal programs conducted on campuses has declined by more than 90 percent. Direct grant programs for the construction and modernization of research laboratories, part of the R&D missions of the research agencies during the 1960's, lapsed twenty years ago.

The newly authorized NSF Academic Research Facilities Modernization program we discussed with you is the first competitive, matching grant program for university research facilities in about 20 years. At the same time, the volume of federally sponsored research at universities has increased markedly as the nation asks more of our institutions, creating a demand for additional and increasingly sophisticated laboratory space. State commitments and institutional efforts to raise private funds have failed to carry the burden. Institutional private fundraising for facilities, always difficult, has been hampered further by recent changes in the tax code which effectively limit charitable contributions and, for many of our leading independent institutions, cap the use of tax exempt financing.

A Comprehensive Policy for Academic Research Facilities

Clearly, no single change in Federal policy or new funding mechanism alone will address the national research infrastructure deficit, which many estimate to be at least \$10 billion. A

Mr. Robert E. Grady
February 28, 1990
Page 3

combination of (1) direct Federal investment designed to leverage expanded State and institutional funds, (2) modernization of the cost principles for Federal programs, and (3) expanded private funding must be relied upon to address the nation's needs. Substantial direct investment by the research agencies is essential, even in these times of budget constraint. As our R&D priorities are established for the 1990's, the research agencies must build a serious commitment to research facilities modernization into their R&D program plans.

The Role of OMB Circular A-21: The Need to Increase the Use Allowance

In addition to developing agency-based competitive grant programs, CORETECH urges the Administration to move now to modernize OMB Circular A-21, the management circular that establishes the principles governing the reimbursement of costs associated with the conduct of federally supported academic research programs.

The Circular should be changed to recognize modern research laboratories have an expected useful life of perhaps twenty years, not fifty years as the Circular presently provides. Moreover, most research instruments become obsolete in no more than five to seven years, not sixteen years as A-21 now provides. CORETECH believes the current use allowances on facilities and instruments are totally out of line with realistic useful lives.

Our recommendation to update the OMB costing principles is not newly formulated by CORETECH. In 1986, for example, the White House Science Council recommended both substantial competitive grant programs and the modernization of Federal costing policies which we now endorse.

A year ago, the Association of American Universities, in a report titled "Indirect Costs Associated with Federal Support of Research on University Campuses: Some Suggestions for Change," proposed the modernization of the facilities provisions of Circular A-21 in the context of more basic structural changes on the costing principles that, taken as a whole, seek to establish a system of cost reimbursement that is clearer, more rational, and, therefore, more sustainable and reliable. Over time the modernization of the facility provisions will allow institutions to improve their long term planning for research facilities.

The AAU report recommends the reform of the facility provisions of A-21 in the context of a package of related recommendations aimed at simplifying the system and increasing

Mr. Robert E. Grady
February 28, 1990
Page 4

general understanding of it in the university community and in government. Those engaged in this work for the past two years believe that changes in reimbursement for the costs of facilities are sustainable only in the context of fundamental changes in the system of reimbursement of costs. While CORETECH has taken no position with regard to all of the suggestions embodied in the AAU report, we are persuaded that the proposal to modernize the facilities provisions of A-21 which CORETECH advocates needs to be considered in the context of the framework established by the AAU report.

Advantages of Modernizing the Facility Provisions of A-21

There are a number of advantages to addressing, at least partially, the nation's research facility deficit through the mechanism of indirect cost reimbursement:

-- The funds will follow appropriated research funds awarded on a competitive, merit basis; they will not be subject to congressional "earmarking," a practice which has escalated in recent years at considerable cost and with disruption of agency research programs.

-- It allows for specific institutional responses to facilities needs and requires stronger institutional planning, commitment, and risk.

-- It recreates a modern system of Federal investment in research universities and creates a structure that will allow for ongoing upkeep of the infrastructure.

The Cost of Modernizing the Facility Provisions of OMB Circular A-21

With regard to costs, the AAU Committee concluded that implementation of the Report's suggestions in their entirety would likely result, especially in the near term, in a revenue neutral outcome. It is impossible to estimate with precision the costs of modernizing the facility provisions of A-21, for at least two reasons:

-- Ultimately, the amount of reimbursement claimed by an institution is the result of a unique set of institutional behaviors, including such factors as how much the institution spends on facilities, the source of funds, and how much the institution can share costs.

Mr. Robert E. Grady
February 28, 1990
Page 5

-- Even if the changes in facilities reimbursement could be quantified as a specified number of percentage points in an institution's total negotiated indirect cost rate, "points" in its rate do not equate to an equivalent sum of money.

Despite these barriers, the Public Health Service and the National Science Foundation have made preliminary cost estimates, presumably based on rough predictions of disparate institutional behavior. We understand that the Foundation estimates that the changes to more realistic use allowances might "cost" \$100 million per percentage point increase in the rates (with no estimate as to the number of points); the PHS estimated the total changes would be in a range of \$100 to \$300 million per year.

Over time, if such estimates are roughly accurate, the changes will contribute significantly to the sustained modernization of academic research laboratories; but, at best, they will only partially meet the nation's facilities needs.

Ending the HHS Conversion Penalty

Institutions currently have the option under A-21 of depreciating research facilities or recovering costs through the use allowance. They may not choose between these methods. While institutions may convert from the use allowance to depreciation on all their research facilities, they are discouraged from converting both by the paperwork burden involved and by the conversion penalty of the Department of Health and Human Services (HHS), which CORETECH believes is contrary to the letter and spirit of A-21. Thus, HHS penalizes a converting institution by not permitting it to recover losses it sustained in the years before conversion. Thus, for example, a research building with a 20-year depreciable life which has been on the 2 percent use allowance for 10 years will have received only 20 percent of the acquisition cost of the building, although 50 percent of its usable life is over. HHS will not permit the capture of the "lost" 30 percent. In your review of OMB Circular A-21, CORETECH hopes this penalty can be removed or mitigated so more institutions can be encouraged to take the depreciation option.

Facility Provisions of A-122

The nation's research facility deficit is not confined to universities. Non-profit research institutes, which are operated independently of universities, suffer from the lack of Federal infrastructure support as well. The cost principles applicable to these independent research institutes are provided in OMB Circular A-122. A-122 contains the same rules applicable to

Mr. Robert E. Grady
February 28, 1990
Page 6

expected useful life of research laboratories and instrumentation as A-21. To the extent that the cost principles governing the useful life of facilities and instrumentation are modified by OMB, CORETECH urges OMB to implement the modifications to both A-21 and A-122.

Circular A-21 allows universities to recover interest costs associated with the acquisition of facilities. Recovery of interest costs has been an important aspect of facilities financing. Unlike A-21 however, A-122 does not allow non-profit research institutes to recover interest costs. Since these costs are allowed by universities, and may soon be recoverable by state and local governments, CORETECH urges OMB to revise A-122 to permit recovery of such interest costs by non-profit research institutes.

SEE/cwk

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121427

FROM: SIMMONS, H.E.: DUPONT

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/10/91

SUBJECT: A THANK YOU FOR SPEAKING AT THE LAVOISIER MEDAL
AWARDS AND A COPY OF "SCIENCES AND CORPORATE
STRATEGY"

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Steve Olson

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS: Enclosure to DAB.

DATE RECEIVED: 05/14/91

FILE: THANK YOU

P-DAB



WILMINGTON, DELAWARE 19898

VICE PRESIDENT
SENIOR SCIENCE ADVISOR

RECEIVED

91 MAY 14 P 3:18

May 10, 1991

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley, Director
Office of Science & Technology Policy
Executive Office of the President
Washington, D.C. 20506

Dear Allan:

I want to thank you on behalf of all of us in Du Pont for the truly outstanding talk you gave at the Lavoisier Medal awards. I have heard personally from a very large number of the people who were there and both you and the contents of your remarks came across in great fashion. Your thoughts were right on the mark for such an occasion and greatly helped to make it the success it turned out to be.

I'll call you in the next month or so and see if we can find a time in the future that it would be convenient for you to visit us again. I would very much like to show you the Experimental Station and the kinds of research going on in a highly diversified company like ours. There are others here, too, who might want to discuss issues with you and we could balance the day any way you prefer.

I have enclosed a copy of "Science and Corporate Strategy" by David Hounshell that I think you might enjoy. The book is a history of R&D in Du Pont for which we made all our records available to the author who did a very fine job.

Doc, Al, and Dick join me in thanking you again for helping to make the day so successful.

Best personal regards,

Sincerely,

H. E. Simmons

H. E. Simmons

HES/amf
Enclosure

THE WHITE HOUSE
WASHINGTON

July 8, 1991

Dear Howie:

It was good to see you again at the Langenberg inauguration and I have been remiss in not writing to you earlier to thank you for the excellent book entitled **Science and Corporate Strategy** that you were good enough to send with your letter of May 10th. As you know, I have spent a lot of the intervening time since I was in Wilmington on some extensive travelling in the Soviet Union, including Siberia and the oriental republics, and so my correspondence is more than a little behind.

I very much enjoyed the time I spent during the awarding of the Lavoisier Medals and was very much impressed by the remarkable achievements of those being recognized. You and your associates can be justly proud of what Dupont has accomplished for better things for better living.

I particularly enjoyed our luncheon and the opportunity to meet a number of your colleagues and I do look forward to taking you up on your invitation to come to Wilmington to see what actually goes on in the research end of your activities.

As you know, Bill Phillips has decided that he must leave by the end of summer and I am still very much in the market for a replacement. Your assistance and suggestions will be very much welcome.

Please give my warmest best wishes to Doc, Al and Dick. I look forward to seeing all of you before too long.

In the meantime, if your travels bring you here to Washington, give me a little warning and I would be delighted to take you to lunch at the White House Mess.

With warmest best wishes,

Sincerely yours,



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

Dr. Howard E. Simmons
Vice President and Senior Science Advisor
Dupont
Wilmington, Delaware 19898

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121369

FROM: MARTIN, Lynn: SECRETARY OF LABOR

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/06/91

SUBJECT: A THANK YOU LETTER

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED: -----

COPIES TO: D. Allan Bromley
Ken Yale

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

P-DAB

DATE RECEIVED: 05/09/91

FILE: THANK YOU *CABINET MEMBER

9121369

SECRETARY OF LABOR
WASHINGTON

May 6, 1991

RECEIVED

91 MAY 9 AIO: 51

The Honorable D. Allan Bromley
Assistant to the President for Science
and Technology
The White House
Washington, DC 20500

OFFICE OF THE
DIRECTOR

Dear Dr. Bromley:

Thank you for your hospitality at our meeting last week. It was a pleasure to see you and learn more about the White House Science office. I look forward to working with you during my tenure in the Administration.

I hope to see you again, soon.

Sincerely,


LYNN MARTIN

LM:dd

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121341

FROM: ROBERTSON, Bruce: WAMC, Albant, New York

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/03/91

SUBJECT: A THANK YOU FOR PARTICIPATING IN THE INTERVIEW FOR
"THE ENVIRONMENT SHOW".

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED: -----

COPIES TO: D. Allan Bromley
Sarah Keegan
ENVIRONMENT

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS: Enclosure to DAB.

DATE RECEIVED: 05/06/91

FILE: THANK YOU*ENVIRONMENT

P-DAB

9121341

WAMC

PUBLIC RADIO NETWORK

WAMC 90.3 FM ALBANY
WAMK 90.9 FM KINGSTON
WCAN 93.3 FM CANAJOHARIE
WANC 103.9 TICONDEROGA

318 CENTRAL AVENUE

ALBANY, NY 12206-2522

(518) 465-5233

3 MAY 1991

The Honorable Dr. Alan Bromley
The Assistant to The President
For Science And Technology
Old Executive Office Building
17th Street and Pennsylvania Ave. N.W.
Suite 358
Washington D.C. 20506

OFFICE OF THE
DIRECTOR

91 MAY 6 PM 12:08

RECEIVED

Dr. Bromley,

Thank you for participating recently in a short interview for "The Environment Show." We talked about the National Academy of Sciences' recent report on "greenhouse warming." Enclosed you will find a cassette copy of the program on which you are featured. I thought you might like to have it for your archives.

The program is a weekly, half-hour show dealing with all aspects of "the environment:" crises; solutions; inventions; legislation; books and the arts. We cover all the areas and subjects...e.g. energy; wildlife protection; solid waste; land management. We are now heard in 103 National Public Radio markets nation-wide; very soon in 2000-plus on the ABC Radio Network!

Again, thank you for granting the interview; I would like to speak with you again sometime in the near future on some other topics.

Very sincerely,
Bruce Robertson
Bruce Robertson

NATIONAL
PUBLIC
RADIO®

JACS TRANSMISSION TIME: 1-MAY-1991 18:54:55 EASTERN TIME

Message # 910501.0090

STO: PROGRAM DIRECTORS
FM: BRUCE ROBERTSON
DT: MAY 3, 1991
RE: "THE ENVIRONMENT SHOW"

#70

Here is this week's feed of "The Environment Show," a weekly half hour program about the environment.

"The Environment Show," hosted by Bruce Robertson, is a magazine-format program about the issues, crises, research, and people in the "environmental movement." The show may be excerpted, with credit given to WAMC.

Please note: as a service to the stations carrying "The Environment Show," we will be happy to provide a custom promo with your station's I.D. In any case, there is a "show-specific" promo at the end of each week's feed. Also, we now have "camera-ready" logos of "The Environment Show" available for you to use in your program guide or media kit. For more information on any of this...I.D.'s and photos...give us a call at (518) 465-5233; ask for Selma Kaplan

On this week's program:

Sometimes environmental action takes place out in the field, as at the site of a toxic spill or a wildlife habitat. Sometimes the action is on paper. Such is the case this spring as debate and study continue over a long-awaited report, by the National Academy of Sciences, on greenhouse warming. Bruce Robertson reached Dr. Alan Bromley, White House science advisor, for comment. (9:53)

Under mounting pressure from environmental groups last year, 'Starkist' Tuna Corporation announced it no longer would accept tuna caught using methods that also kill dolphins. Now, as Bruce Robertson reports, Michael McGowan of 'Bumble Bee' Tuna is announcing a new method by which his company will fish for tuna....a method that will exclude dolphins. (4:27)

Saving the The Ancient Forests of the Pacific Northwest is going to require congressional action; on this, all sides agree. What is controversial is the type of congressional intervention being proposed. Indiana Congressman Jim Jontz is proposing to halt all logging and roadbuilding activity on land not currently in Federal hands; Jim Geisinger, of the the Northwest Forestry Association, says this will destroy the industry. Bruce Robertson takes a look at the issues. (11:30)

That's it for this week!!!

SATELLITE FEED: FRIDAY 3 MAY ! 1991 @1200-1229 ON CHANNEL 05



Bruce Robertson
Producer

318 Central Avenue
Albany, New York 12206-2522
(800) 323-9262

A breath of fresh airtime.

THE E ENVIRONMENT SHOW

The Environment Show, a weekly half-hour of news from all fronts of the battle to save the planet, can arm your listeners with information they need to make a difference. From the plight of the Native American Havasupai, struggling against the decimation of the Grand Canyon's ecosystem, to the poisoning of the water we drink, *The Environment Show* brings the issues home. Special guests like Carl Sagan, Albert Gore and Helen Caldicott share insightful commentary and offer constructive advice on environmental problems.

The Environment Show will help your listeners conserve our most precious resources and make the right choices for themselves and their families.

And adding *The Environment Show* to your schedule is easier than sorting out the recyclables in your front office-- because *The Environment Show* is available to all stations **ABSOLUTELY FREE**.

Don't waste a second. Audition the program any Friday, 1200-1229 on Channel 5. If you'd like more information, write to Selma Kaplan, WAMC National Productions, 318 Central Avenue, Albany, New York 12206-2522, or call 1-800-323-9262.

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121321

FROM: SAMIOS, N.P.: BROOKHAVEN NATIONAL LABORATORY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 05/01/91

SUBJECT: A THANK YOU FOR BEING THE KEYNOTE SPEAKER AT THE
RELATIVISTIC HEAVY ION COLLIDER "BEGINNING
CONSTRUCTION CEREMONY".

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Steve Olson

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/06/91

FILE: THANK YOU

P-DAB-

1121321
RECEIVEDBROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.

91 MAY 6 12:07

Upton, Long Island, New York 11973

(516) 282-2772
FTS 666

Office of the Director

OFFICE OF THE
DIRECTOR

May 1, 1991

The Honorable D. Allan Bromley
Assistant to the President for
Science and Technology
Old Executive Office Building
17th & Pennsylvania, NW
Washington, D.C. 20506

Dear Allan:

I would like to thank you for being our keynote speaker at our Relativistic Heavy Ion Collider "Beginning of Construction Ceremony". The staff, knowing of your previous relationship to RHIC, appreciated the significance of you being there.

It was a great day for Brookhaven, the Department of Energy and American science. After a lot of hard design work, our staff had the pleasure of seeing the symbolic first magnet being transported from the outside assembly area to the inside of the ring. We now turn to the exciting task of bringing this machine into being in the next few years and to develop detectors for the first round of physics experiments. RHIC will play a major role in the world of nuclear physics giving us a unique probe into states of nuclear matter similar to those that occurred in the first moments of the creation of the universe. Truly an exciting program!

To commemorate this event we have prepared a plaque made from a thin cross section of one of the prototype magnets. One of these is being sent to you for your enjoyment. We are also producing for you one of those large aerial photographs of the laboratory.

Again, thanks.

With best regards,

N. P. Samios
Director

THE WHITE HOUSE
WASHINGTON

July 9, 1991

Dear Nick:

Many thanks for the beautiful site photograph of Brookhaven as well as the section from one of the RHIC prototype magnets. Apart from being a very interesting abstract piece, the latter would make a superb sea anchor and the postal people here brought it in with their knees wavering.

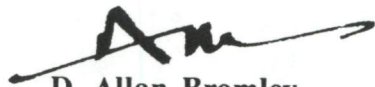
Unfortunately, the present flap about the space station is making my life vastly more difficult than it need be. The competition is widely misunderstood and is not between space and science nor is it between big science and little science. As the chairman of the House Appropriations Subcommittee made extremely explicit, it is between investment in the future and immediate consumerism.

If the scientific and technical communities become identified as leaders in the fight against the space station in the Senate, there are a sufficient number of people, both in the Administration and in the Congress to be more than a little vindictive when we come to the FY '93 budget negotiations. I have been spending most of my time of late trying to convince people that the argument for the space station's construction is not now, nor has it ever been, science but rather purely adventure and the first step for the human species away from the home planet. Once we get a space station for that reason, then there is some excellent science, particularly in the life sciences area, that really must be done before we can take the next step and I am quite prepared to believe that there may be some very interesting microgravity studies as well. Neither the microgravity nor the life sciences, however, of themselves can provide any adequate justification for moving forward with the station.

It was good to see you and to have the pleasure of meeting your daughter at the Academy meeting, and I look forward to our paths crossing soon.

With warmest best wishes,

Sincerely yours,

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

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

Dr. Nicholas P. Samios
Director
Brookhaven National Laboratory
Upton, Long Island, New York 11973

9121321
RECEIVEDBROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.

91 MAY 6 12:07

Upton, Long Island, New York 11973

(516) 282-2772
FTS 666

Office of the Director

OFFICE OF THE
DIRECTOR

May 1, 1991

The Honorable D. Allan Bromley
Assistant to the President for
Science and Technology
Old Executive Office Building
17th & Pennsylvania, NW
Washington, D.C. 20506

Dear Allan:

I would like to thank you for being our keynote speaker at our Relativistic Heavy Ion Collider "Beginning of Construction Ceremony". The staff, knowing of your previous relationship to RHIC, appreciated the significance of you being there.

It was a great day for Brookhaven, the Department of Energy and American science. After a lot of hard design work, our staff had the pleasure of seeing the symbolic first magnet being transported from the outside assembly area to the inside of the ring. We now turn to the exciting task of bringing this machine into being in the next few years and to develop detectors for the first round of physics experiments. RHIC will play a major role in the world of nuclear physics giving us a unique probe into states of nuclear matter similar to those that occurred in the first moments of the creation of the universe. Truly an exciting program!

To commemorate this event we have prepared a plaque made from a thin cross section of one of the prototype magnets. One of these is being sent to you for your enjoyment. We are also producing for you one of those large aerial photographs of the laboratory.

Again, thanks.

With best regards,

N. P. Samios
Director

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121328

FROM: GOLDEN, William: CARNEGIE COMMISSION ON SCIENCE, TECHNOLOGY AND GOVERNMENT

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/30/91

SUBJECT: A THANK YOU FOR THE MATERIAL YOU SENT.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/07/91

FILE: BROMLEY CORRESPONDENCE

- Thank you

9121328

CARNEGIE COMMISSION ON SCIENCE, TECHNOLOGY, AND GOVERNMENT

10 Waverly Place, New York, N.Y. 10003 (212) 998-2150 FAX (212) 995-3181

RECEIVED

91 MAY 7 All: 45 April 30, 1991

WILLIAM T. GOLDEN
Co-Chair

JOSHUA LEDERBERG
Co-Chair

DAVID Z. ROBINSON
Executive Director

RICHARD C. ATKINSON

NORMAN R. AUGUSTINE

JOHN BRADEMAS

LEWIS M. BRANSCOMB

HON. JIMMY CARTER

WILLIAM T. COLEMAN, Jr.

SIDNEY D. DRELL

DANIEL J. EVANS

ANDREW J. GOODPASTER

SHIRLEY M. HUFSTEDLER

B. R. INMAN

HELENE L. KAPLAN

DONALD KENNEDY

CHARLES McC. MATHIAS, Jr.

WILLIAM J. PERRY

ROBERT M. SOLOW

H. GUYFORD STEVER

SHEILA E. WIDNALL

JEROME B. WIESNER

Dear Allan:

OFFICE OF THE
DIRECTOR

Thank you for sending me that package of interesting material identical to what you forwarded to all participants of the Carnegie Group meeting at Mount Kisco. I have sent it on to my colleagues of the Carnegie Commission staff and have asked your office to send me another set for my own further reference.

It was very good of you to be so complimentary, and very gratifying to me to me that the idea of holding such an informal conference of top level science advisers was not only well received but proved, in fact, to be very useful. Thank you again for your graciousness.

I have just received, and forwarded a copy to you, a letter from Dr. Wataru Mori who attended from Japan. He, too, thought his time was well spent and looks forward to attending the second meeting in October or November.

On another subject, I am told that your talk at the Fordham/Center for Study of the Presidency session in New York last Thursday was very well received. Would that I could have been there; but increasingly I find it difficult to be in two places at the same time. One of the inconsiderate laws of physics. Instead, I was at the spring meeting of the American Philosophical Society in Philadelphia--an event that is always pleasant and rewarding.

I'm going to be in London in mid-May for a several day joint meeting of the American Philosophical Society with the Royal Society; and I hope during that period to have a friendly chat with Bill Stewart.

With warm regards,

Sincerely,

Bill

William T. Golden

ADVISORY COUNCIL

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RALPH E. GOMORY

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JONAS SALK

MAXINE F. SINGER

HON. DICK THORNBURGH

ADM. JAMES D. WATKINS (RET.) *

HERBERT F. YORK

CHARLES A. ZRAKET

*Through January 20, 1989

Dr. D. Allan Bromley
Science Adviser to the President
Old Executive Office Building, Suite 358
17th Street and Pennsylvania Avenue, NW
Washington, DC 20506

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121297

FROM: WINCE-SMITH, Deborah L.: DEPARTMENT OF COMMERCE

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/29/91

SUBJECT: A THANK YOU FOR THE OPENING ADDRESS AT THE
CONFERENCE ON U.S. INDUSTRY ACCESS TO JAPANESE
SCIENCE AND TECHNOLOGY.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Steve Olson
INTERNATIONAL/POLICY

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 05/02/91

FILE: THANK YOU

P-DAB



9121291
UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Technology Policy
Washington, D.C. 20230

RECEIVED

91 MAY 2 A 9: 51

OFFICE OF THE
DIRECTOR

APR 29 1991

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

Dear Dr. Bromley: *Allan*

I want to thank you for giving such a fine opening address to our recent Conference on U.S. Industry Access to Japanese Science and Technology. Your excellent overview comments of Administration policy in this area and your comments about your role and that of the White House Office of Science and Technology Policy were extremely interesting to our participants. Your presence and the vigor of your presentation gave them all a sense of the importance of the subject which carried through the rest of the Conference.

As you well know, I share your view that the United States needs to do all it can to maintain its scientific and technological expertise and we believe the success of this Conference was a step forward. We plan to publish the Conference proceedings which we hope will increase awareness that much remains to be done to equalize the current state of science and technology exchange and monitoring between Japan and the United States. We will, of course, make a copy of the proceedings available to you as soon as they are published.

Thank you again for taking the time to be with us and making such a vital contribution.

Sincerely,

Deborah L. Wince-Smith

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121211

FROM: O'HARA, Joseph A.: FORDHAM UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/18/91

SUBJECT: A THANK YOU FOR ACCEPTING THE INVITATION TO JOIN
THEIR ALUMNI AND RECEIVE AN HONORARY DOCTORATE OF
SCIENCE.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

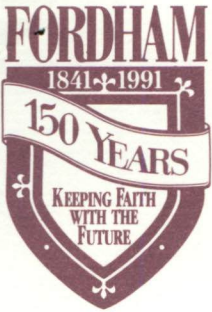
CONTACT PERSON:

REMARKS:

DATE RECEIVED: 04/23/91

FILE: THANK YOU

P-1545



Fordham University
Bronx, New York 10458
(212) 579-2003

9/2/2/1
RECEIVED

Office of
The President

91 APR 23 AM : 42

OFFICE OF THE
DIRECTOR

April 18, 1991

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Old Executive Office Building
Room 358
Washington, DC 20506

Dear Dr. Bromley,

Thank you for your letter of April 9th, in which you accept Fordham University's invitation to join our alumni and do our institution honor by receiving an honorary doctorate of science. While the important meeting you will chair in the Soviet Union on May 18th of this year will make it impossible for you to participate in our 1991 Commencement, I am pleased that you will be able to join us at our 1992 Commencement on Saturday, May 16th. It will be a pleasure to welcome you back to Fordham again on that occasion.

Meanwhile, I look forward to meeting you next week on the occasion of the annual Sievers Lecture to be held on the evening of April 25 at our Lincoln Center Campus.

Sincerely,

Joseph A. O'Hare, S.J.

JO'H/lg

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121235

FROM: ROSENZWEIG, ROBERT

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/22/91

SUBJECT: A THANK YOU FOR PARTAKING IN THE ASSOCIATION OF
AMERICAN UNIVERSITIES' MEETING

ASSIGNED TO: D. Allan Bromley

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED:

FILE: THANK YOU

P. DAB



9121235

Association of American Universities

President

April 22, 1991

Dr. D. Allan Bromley
Director, White House Office of Science and
Technology Policy
Assistant to the President for Science and
Technology
358 Old Executive Office Building
17th Street and Pennsylvania Avenue, NW
Washington, DC 20506

Dear Allan:

I want to thank you for taking the time to join us at last week's AAU meeting. It was an extremely fruitful session, as I am sure you could tell from the lively discussion. I know I speak for all of my colleagues when I say that we value your leadership, and we look forward to working closely with you in the years ahead.

Sincerely,

A handwritten signature in dark ink, appearing to be 'Bob' or 'R. Rosenzweig'.

Robert M. Rosenzweig

RMR/jpk

RECEIVED
OFFICE OF THE
DIRECTOR

APR 25 10:42

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION/WH

DOCUMENT NUMBER: 9121169

FROM: HEITMAN, Betty: THE PRESIDENT'S COMMISSION ON EXECUTIVE
EXCHANGE

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/18/91

SUBJECT: A THANK YOU LETTER FOR YOUR PRESENTATION.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 04/19/91

FILE: THANK YOU

P-*LAB*

9121169

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91 APR 19 AIO:08
The President's Commission on Executive Exchange
THE WHITE HOUSE

OFFICE OF THE
DIRECTOR

April 18, 1991

Dear Dr. Bromley:

Thank you for taking time out of your busy schedule to speak to the Presidential Exchange Executives. It was very kind of you to meet with us and share your insights.

The Executives enjoyed your presentation. While the Executives fulfill their assignments, it is important that they have first hand knowledge of the issues, policies and policy makers in Washington. I appreciate your contribution toward establishing this foundation for their Exchange year.

Thank you again for your support of the President's Commission on Executive Exchange.

Sincerely,

A handwritten signature in cursive script, reading "Betty Heitman".

Betty Heitman
Executive Director

The Honorable D. Allan Bromley
Assistant to the President
and Director Of Science and Technology
The White House
Washington, DC 20506

BH/lb