

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

FOIA Number:
2005-0336-F

FOIA MARKER

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

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

OA/ID Number: 62000
Folder ID Number: 62000-003

Folder Title:
D. Allan Bromley Correspondence A-G [3 of 4] [1991]

Stack:

Row:

Section:

Shelf:

Position:

0

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Withdrawal/Redaction Sheet (George Bush Library)

Doc. No. / Type	Subject/Title	Date	Restriction	Classification
01. Letter	To: Pierre Demarque From: Allan Bromley Re: Canadian contribution to Project Gemini (2 pp.)	7/31/91	(b) / (1)	
02a. Letter	To: Vladimir Ezhov From: Allan Bromley Re: Joint Commission on Basic Scientific Research (1 pp.)	12/3/91	(b) / (1)	
02b. Fax Cover Sheet	To: Allan Bromley From: A.N. Bykov Re: Forwarding letter from V.V. Ezhov (1 pp.)	10/23/91	(b) / (1)	
02c. Letter	To: Allan Bromley From: V.V. Ezhov Re: Unofficial translation of letter re: Joint Commission on Basic Scientific Research (2 pp.)	10/23/91	(b)(1)	
02d. Letter	To: Allan Bromley From: V.V. Ezhov Re: Joint Commission on Basic Scientific Research [in Russian] (3 pp.)	10/23/91	(b)(1)	
03. Letter	To: Vladimir Ezhov From: Allan Bromley Re: Joint Commission on Basic Scientific Research (1 pp.)	6/13/91	(b) / (1)	
04. Letter	To: Doyle Fredrick From: Allan Bromley Re: Joint Commission on Basic Scientific Research (1 pp.)	10/4/91	(b) / (1)	
05a. Letter	To: Vasant Gowariker From: Allan Bromley Re: India (1 pp.)	11/29/91	(b) / (1)	

Page 1 of 2

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence A-G [3 of 4] [1991]

Pinksheet Number: MB228
OA/ID Number: 62000-003
Date Closed: 2/1/2010
FOIA/Sys Case #: 2005-0336-F
Re-review Case #:
P-2/P-5 Review Case #:

Withdrawal/Redaction Sheet

(George Bush Library)

Doc. No. / Type	Subject/Title	Date	Restriction	Classification
05b. Letter	To: Allan Bromley From: Vasant Gowariker Re: India (1 pp.)	8/22/91	(b) (1)	

Page 2 of 2

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence A-G [3 of 4] [1991]

Pinksheet Number: MB228
OA/ID Number: 62000-003
Date Closed: 2/1/2010
FOIA/Sys Case #: 2005-0336-F
Re-review Case #:
P-2/P-5 Review Case #:

THE WHITE HOUSE

WASHINGTON

November 29, 1991

Dear Jean-Pierre:

Profound apologies are in order for the fact that your letter dated September 13 somehow got mislaid in my office and has only now surfaced. That being the case, I apologize profoundly for being unable to respond to the suggestion that we get together here in Washington during your October trip to the United States. I would much have looked forward to that and feel very badly that we missed connections.

As you know, I expect to be in France this coming week for the celebrations when Walter Greiner and others receive their doctorates honoris causa and look forward to the opportunity to see you and Jacqueline at that time.

You know that you can count on my help for any professional activities that you may have in mind and I would certainly look forward to having an opportunity to discuss them with you while I am in Strasbourg, although I am sure that Andre will have a very tight schedule planned for me.

Over the past year I have developed a close working relationship with Kourilsky at the IN2P3 and with Hubert Curien, the Minister for Science and Technology, who, hopefully, would be in a position to put a word in the right place when you tell me what you would like to do.

I look forward to seeing you very soon,

Sincerely yours,



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

Dr. Jean-Pierre Coffin
Centre de Recherches Nucleaires
B.P. 20 67037 Strasbourg Cedex
France

"CORRESPONDENCE TRACKING"

TYPE: ACTION DOCUMENT NUMBER: 9124181
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: COFFIN, Jean-Pierre: CENTRE DE RECHERCHES NUCLEAIRES

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/13/91

SUBJECT: REQUEST TO MEET WITH YOU WHILE IN THE U.S. AND
DISCUSS CURRENT PROJECTS AND YOUR
SUGGESTIONS/OPINIONS/HELP REGARDING THESE PROJECTS.

DIRECTORATE STAFF
ASSIGNED: D. Allan Bromley ASSIGNED:

ACTION STAFF
REQUIRED: AS APPROPRIATE ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 10/08/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO:

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

OSTP RECEIVED: 09/24/91 FILE: INTERNATIONAL
DEPT RECEIVED:

RECEIVED
CENTRE DE RECHERCHES NUCLEAIRES

B.P. 20 67037 STRASBOURG CEDEX
31 SEP 24 14:03
(France)

TEL. STANDARD 88.28.63.01
TELEX CNRS CRO 890032F
TELECOPIEUR 88.28.09.90
23, rue du Loess
STRASBOURG-CRONENBOURG

OFFICE OF
DIRECTOR

TEL. Accès direct 88.28.64.48.

JPC/ng

Strasbourg, le 13 septembre 1991

Dr. D.A. BROMLEY
Assistant for Science and
Technology
WHITE HOUSE OFFICE
1600, Pennsylvania Avenue
WASHINGTON, D.C. 20500
U.S.A.

Dear Allan,

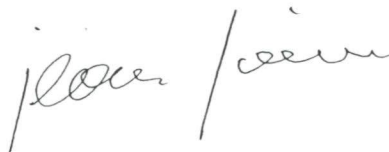
Thank you so much for your letter of July 31, 1991.

I am planning to go to the U.S.A. to attend the Quark Matter '91 Conference held at Gatlinburg. As you have noticed a few colleagues and me at Strasbourg are turning to relativistic heavy-ion induced Physics. This is because it is where part of the action is and also because, as being 53, I still have hopefully about ten good years to participate fully once more in a very new and exciting project of major size. Thus, I am thinking of a possible collaboration at RHIC. Of course, you know that I have some excellent friends at BNL plus, now, a former student of mine. This helps to settle new joint project.

At this moment, my plans are still flexible and stand as follows : I will leave France on November 10 and fly straight to Gatlinburg via New York. I will attend the Conference from 11 to 15. Then, I will go to Brookhaven and stay from 18 to 21 to discuss our possible future. I will be accompanied, on this trip, by Francis Jundt who remains a faithful, close and efficient collaborator. Will I have the chance and the immense pleasure to see you here or there ? I would like very much to tell you, in some detail, what we are presently doing and what are our projects. Also, I would like very much to have your opinion, your suggestions and possibly your help about these projects. Your advice is important, because at this level, choices are often difficult (a RHIC collaboration might mean a strong change in my professional and my private life). Your help might also be crucial because I will have to be convincing to some big wheels at the I N2 P3 and the CNRS.

In any case, Jacqueline and me, will have the pleasure to see you in Strasbourg next December and we look very much forward for this event.

With my best regards,



Jean-Pierre Coffin

THE WHITE HOUSE
WASHINGTON

November 13, 1991

Paul
Dear Professor Chu:

Thank you for your letter of October 7, 1991, inviting me to be the keynote speaker at the dedication of the superconductivity research facility and International Workshop scheduled for February 26, 1992 in Houston. I apologize for the much belated response.

As you can appreciate, the number of invitations I receive that entail traveling out of town is overwhelming, and I am finding that I cannot be away from Washington as much as I might like. Although I would like to join you and your colleagues on this special occasion, the next several months are already heavily committed, so I must regretfully decline.

I appreciate your thinking of me and would like to offer my best wishes for the dedication.

Sincerely yours,

Duan

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

Professor C. W. Chu
Temple Chair of Science and
Director, Texas Center for Superconductivity
University of Houston
Houston, Texas 77204-5932

*I would have liked
to join you but I am
completely overbooked
for the period.
DAB*

UH

**Texas
Center for
Superconductivity**

University of Houston
TCSUH-Office of Public Affairs
Houston Science Center
Houston, Texas 77204-5932
(713) 743-8210
FAX: (713) 743-8201

4383

RECEIVED

October 7, 1991 9:00 AM 10:18

Dr. Alan Bromley
Assistant to the President for Science, and
Director, Office of Science and Technology Policy
Old Executive Office Building
17th St. & Pennsylvania Avenue, N.W.
Washington, D. C. 20506

OFFICE OF THE
DIRECTOR

Dear Alan:

I enjoyed seeing you again last week at the dinner hosted by Dr. Aaron Cohen, and wish to extend a standing invitation for you to visit the Texas Center for Superconductivity at the University of Houston anytime convenient to you, particularly on February 26, 1992 for the dedication of the Houston Science Center Building. I would appreciate the opportunity to show you our laboratories and better acquaint you with the research programs in the materials sciences in general, and superconductivity in particular. The Center receives support from the State, the Federal Government, industry and private foundations, setting an example of a partnership for future research and development in the U. S.

The University of Houston plans to formally dedicate our new facility, the Houston Science Center, on February 26, 1992. We would be greatly honored if you could join us as a special guest and keynote speaker for the event, on any topic of your choice. We shall unveil publicly the building on the UH campus that houses one of the premier superconductivity research facilities in the world. Following the dedication ceremonies, TCSUH will host an International Workshop on HTS: New Materials and Bulk Applications, for approximately 120 experts to exchange information and to explore ways to push back the frontier in HTS science and technology. If time permits, a few words from you on the Federal Government's view on HTS research and development will no doubt be the highlight of the workshop. I will send you additional information on the event as soon as it is available.

I have enclosed a few articles about the Center's research endeavors for your reading pleasure, and hope that you will find them to be informative.

Sincerely,

C. W. Chu
Temple Chair of Science and
Director, Texas Center for Superconductivity
at the University of Houston

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9124383

ORIGINATOR: 02

SPEECH: YES NO

FROM: CHU, C.W.: UNIVERSITY OF HOUSTON

DATE OF EVENT: 02/26/92 THRU:
TENTATIVE DATES:

LOCATION OF EVENT: TEXAS CENTER FOR SUPERCONDUCTIVITY, HOUSTON TEXAS.

TIME OF EVENT:

SUBJECT: AN INVITATION FOR DR. BROMLEY TO SPEAK AT THE
DEDICATION CEREMONY FOR THE HOUSTON SCIENCE CENTER
BUILDING. FOLLOWING THE CEREMONY THERE WILL BE A
WORKSHOP ON HTS: NEW MATERIALS AND BULK
APPLICATIONS.

RSVP: 10/25/91

CONTACT PERSON: C.W. CHU, DIRECTOR

CONTACT NUMBER:

INVITATION ACCEPTED?

YES NO

COPIES TO: PHYSICAL SCIENCES

REMARKS: ADDITIONAL INFORMATION

E.

*Send a memo note
DAB*

DATE OF LETTER:

FILE: P-IN\

THE WHITE HOUSE
WASHINGTON

December 17, 1991

Dear Mr. Chiarelli:

Thank you for sending me the flyer about **Geographical Collaborative Systems: Principles and Applications**. I am delighted that a copy of your publication is enroute to me and I look forward to reading it.

Thank you for thinking of me, all best wishes.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with a small circle at the end of the last word.

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

Mr. Robert M. Chiarelli
Manager, Imports and Domestic Ventures
605 Third Avenue
New York, New York 10158-0012

"Document Control"

TYPE: INFORMATION
ORIGINATOR: 02

DOCUMENT NUMBER: 9124725
DIRECTORATE STATUS

STATUS C

FROM: CHIARELLI, Robert M.: JOHN WILEY & SONS, INC.

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/04/91

SUBJECT: A LETTER REGARDING INFORMATION DR. BROMLEY WAS
INTERESTED IN FROM A DISCUSSION WITH DR. DAVID RHIND
AT A GIS MEETING.

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: 11/12/91
FILE: ENVIRONMENT

DEPT RECEIVED:

CENTRAL FILES:

*Just Thank
you note
please*



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New York, NY 10158-0012
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RECEIVED

91 NOV 12 A10:11

November 4, 1991

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Science & Technology Advisor
Executive Office of the President
Office of Science and Technology Policy
Old Executive Office Building
Suite 358
17th St and Pennsylvania Ave NW
Washington, DC 20506

Dear Dr. Bromley:

Dr. David Rhind spoke with you at the GIS meeting at Raleigh, and it seems you have expressed significant interest in GIS and in Dr. Rhind's collaborative efforts on a truly landmark publication.

I am enclosing a flyer that will give you an overview of Geographical Information Systems: Principles and Applications. In addition I am sending to you under separate cover a complimentary copy of what we consider to be a definitive work.

If Wiley can offer you any further information on this, or other GIS titles, please do not hesitate to contact me at 212-850-6260.

Sincerely,

Robert M. Chiarelli
Manager, Imports and Domestic Ventures

cc: Dr. D. Rhind
V. Lawrence
J. Keenan

THE WHITE HOUSE
WASHINGTON

December 18, 1991

Dear Erwin:

Many thanks for your kind comments concerning my talk to the Materials Research Society.

Your points about the training of technicians and the use of modern technology, e.g., ion implantation, are well taken.

I am distressed to learn that the school system in Orlando does seem to have a fundamentalist bent. It is unfortunately true that in other parts of the country the only schools that do teach anything resembling reasonable science are the private ones. But again, your point is very well taken.

Let me take this occasion to wish you and your family a very happy holiday season and the best of possible New Years.

With all best wishes,

Sincerely yours,



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

Mr. Erwin V. Cohen
CRC Press, Incorporated
2000 Corporate Boulevard, N.W.
Boca Raton, Florida 33431

"Document Control"

TYPE: INFORMATION

ORIGINATOR: 02

STATUS C

DOCUMENT NUMBER: 9125110

DIRECTORATE STATUS

FROM: COHEN, Erwin V.: CRC PRESS, INC.

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/10/91

SUBJECT: A LETTER REGARDING DR. BROMLEY'S SPEECH AT MRS.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY

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

OSTP RECEIVED: 12/13/91 DEPT RECEIVED:
FILE: P-EDUCATION
CENTRAL FILES:



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PUBLISHERS SINCE 1913

Erwin V. Cohen
Publisher

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Boca Raton, FL 33431, U.S.A.
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FAX (407) 997-7249
FAX (407) 997-0949
Telex 568689

December 10, 1991

Dr. D. Allen Bromley
Assistant to the President
for Science and Technology
Room 360
Old Executive Office Building
Washington, DC 20506

Dear Allen,

I thought I might convey to you that there were numerous positive comments following your talk at MRS. Congratulations on a fine job.

You mentioned a supertechnician gap, and that's a point I pondered over when I was yet in graduate school. However, I have a view different from yours as to why this gap exists. American students who are destined to be no better than mediocre engineers are able to obtain degrees. Pre-war German and present day Japanese students of equivalent talent know that degrees will not be available to them, and the more gifted among these "rejects" become classy technicians.

You raised another point that was pertinent to a discussion I had some few hours before your talk. Jim Hirvonen tried marketing his ion implantation device for hardening cutters (one just sticks a cutter in the beam) to companies who use up hundreds per week. The companies had new cutters in the budget, but a one time outlay for an overall cost saving device was not, and approaching management for this outlay was something no one at the lower company levels wanted to do.

I have one more matter to cover, and this is the most important one, especially because our president seems to understand the importance of science and technology to this nation's future, and is trying to do the right thing by it. Unfortunately, he doesn't realize that if religious based private schools receive government financing we can say goodbye to future generations of scientists. The public schools will become repositories for ghetto kids and the rest of the kids will be taught that much of science goes against the Bible and should not be taught or learned - and not just evolution and cosmology. Were I not living in Orlando, I might not take this so seriously. But, these people are frightening, have growing political power, and are masters at destroying the facility for critical thinking.

ESSENTIAL INFORMATION FOR PROFESSIONALS

 Times Mirror
Books

Dr. D. Allen Bromley
December 10, 1991
Page 2

Our founding fathers damn well knew what they were doing when they separated religion and the state. If in a context different from today, they had first hand experience with its abuses.

Keep up the good work.

With best wishes,

Sincerely yours,

A handwritten signature in cursive script, appearing to be 'D. Allen Bromley', written in dark ink.

EVC/bls

THE WHITE HOUSE

January 3, 1992

Dear Mr. Fisher:

Many thanks for the detailed map
of the New England Power Pool's
interconnection with Hydro Quebec.
It is just what I needed.

Best wishes for the New Year.

Sincerely,
Dwight D. Bush

"Document Control"

TYPE: INFORMATION

ORIGINATOR: 02

STATUS C

DOCUMENT NUMBER: 9125273

DIRECTORATE STATUS

FROM: DISHER, E.O.: UNITED ILLUMINATING

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/24/91

SUBJECT: HE IS FORWARDING A DIAGRAM SHOWING THE ROUTE OF THE
NEW ENGLAND POWER POOL'S INTERCONNECTION WITH
HYDRO-QUEBEC.

DIRECTORATE
ASSIGNED: STAFF
ASSIGNED:

ACTION
REQUIRED: STAFF
ACTION:

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

COPIES TO: D. Allan Bromley
PHYSICAL SCIENCES

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

OSTP RECEIVED: 12/31/91
FILE: P-PHYSICAL SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

5273J

General Offices: 80 Temple Street

United Illuminating

Box 1501, New Haven, CT 06510-0901

December 24, 1991

U.S.T.P.
MAIL ROOM

Dr. D. Allan Bromley
Science Advisor to the President
The White House
Washington, DC 20500

Dear Dr. Bromley:

Enclosed is a diagram showing the route of the New England Power Pool's interconnection with Hydro-Quebec. I have highlighted the line and its connected substations and have indicated the power carrying capability of each substation.

If any additional information would be helpful, please call me at (203) 777-7025.

Yours very truly,



E.O. Disher
Manager - Transmission Planning
and NEPOOL Affairs

EOD:ekb
EODI224A
Enclosure

The United Illuminating Company

THE WHITE HOUSE

WASHINGTON

January 8, 1991

Dear Jerry:

I am honored and delighted by your request that I accept the dedication of the proceedings of your current conference. The requested prose is enclosed herewith but you may wish to change this to fit the space available.

You deserve the gratitude and congratulations of all of us in nuclear physics for providing a continuing forum for, and focus on, the application of nuclear science and--specifically--nuclear accelerators. The series of conferences that you have organized has won worldwide recognition and while I regret that my current activities make it impossible for me to participate as I once could, I welcome this opportunity to be associated with the series.

Again my thanks, I am indeed, honored!

With all best wishes for a happy, healthy and rewarding 1991.

Sincerely,



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

Professor Jerome L. Duggan
Physics Department
University of North Texas
Denton, Texas 76203

The Editor takes pleasure in dedicating this Volume
to
D. Allan Bromley

in recognition of his continuing contribution to nuclear science and his pioneering work in that science and in its application to problems of societal importance.

D. Allan Bromley did graduate work in nuclear physics both at Queen's University in Canada and at the University of Rochester. After several years on the Rochester faculty, he moved to the Chalk River Nuclear Laboratories, where he and his colleagues demonstrated that the research capabilities of small Van de Graaff accelerators are limited only by the imagination of their users. Pioneering in the use of helium-3 beams, in the development of semiconductor nuclear detectors, and in the development of precision research with heavy ion beams, the Chalk River group then installed the first tandem Van de Graaff accelerator in 1959.

Moving to Yale in 1960, Allan began planning for the first Emperor Van de Graaff and installed it in the A. W. Wright Nuclear Structure Laboratory, which he founded in 1963 and directed until 1989. During the past 25 years, this laboratory established itself as one of the world's foremost centers for graduate education in nuclear physics. Allan insisted that its program span the entire range from the most fundamental to the most applied topics in nuclear science.

Allan has been very active in science policy circles, both nationally and internationally, and has served as President of the American Association for the Advancement of Science, the world's largest scientific society, and of the International Union of Pure and Applied Physics, the world coordinating body for physics.

His work has been recognized by the U. S. National Medal of Science, by sixteen honorary doctorates from universities in Canada, France, Germany, Italy, South Africa, and the United States, and by election to the U.S. National Academy of Sciences and the American Academy of Arts and Sciences.

Allan played a leading role in establishing the Division of Nuclear Physics in the American Physical Society and served as its first Divisional Councillor.

He is currently the Assistant to the President of the United States for Science and Technology and Director of the Office of Science and Technology Policy in the Executive Office of the President, while on leave from his Henry Ford II Professorship in Physics at Yale University.

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

DATE: 1-9-91

TO:
ADDRESS:

Prof. Jerome Duggan
Univ. of North Texas

TELEPHONE NUMBER:

817 / 565 - 3252

FAX NUMBER:

817 / 565 - 2227

FROM:

Marian Nida

TELEPHONE NUMBER:

FAX NUMBER:

(202) 395-3261

NUMBER OF PAGES, INCLUDING COVER SHEET

3

SPECIAL INSTRUCTIONS:

The originals are en route!

TRANSMISSION REPORT

THIS DOCUMENT (REDUCED SAMPLE ABOVE)
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3

*** SEND ***

NO	REMOTE STATION I. D.	START TIME	DURATION	#PAGES	COMMENT
1	817 565 2227	1- 9-91 10:23	2'04"	3	

TOTAL 0:02'04" 3

XEROX TELECOPIER 7021

THE WHITE HOUSE

WASHINGTON

March 26, 1991

Dear Professor Davis:

Many thanks for your letter of March 15.

The points you make are, of course, very much well taken and I have read with interest the material that you have provided with your letter. I also would admit that in drawing the distinction between opportunities and entitlement, I obviously was making the picture an extreme one to emphasize my point and to draw attention to what I feel have been rather counterproductive activities, both in the medical field and the physical sciences recently on the entitlement front. I could not agree with you more, however, that promising immediate returns from fundamental research is not only dangerous, but actually dishonest.

Many thanks for writing and for sending me such interesting material.

With warmest best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D." being small and the last name "Bromley" being larger and more prominent.

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

Professor Bernard D. Davis
Bacterial Physiology Unit
Harvard Medical School
25 Shattuck Street
Boston, Massachusetts 02115

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120842

FROM: DAVIS, Bernard D,: BACTERIAL PHYSIOLOGY UNIT, HARVARD

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/15/91

SUBJECT: FOLLOW-UP QUESTION TO A RECENT LECTURE CONCERNING
EDUCATION OF THE PUBLIC AND LEGISLATORS ON BOTH LONG
TERM AND SHORT TERM BENEFITS OF BASIC RESEARCH.

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: A response is not expected to the question, it is a point which
you might find of interest.

DATE RECEIVED: 03/22/91

FILE: LIFE SCIENCES-BIOTECHNOLOGY

BACTERIAL PHYSIOLOGY UNIT
HARVARD MEDICAL SCHOOL
25 SHATTUCK STREET
BOSTON, MASSACHUSETTS 02115
TELEPHONE: (617) 732-2022

84-0460

Mar. 15, 1991

Dr. Allan Bromley,
Office of Science and Technology Policy,
The White House,
Washington, DC. 20418

Dear Dr. Bromley,

Since I am sharing a course on Biotechnology at the Kennedy School of Government with Lew Branscomb and Rollin Johnson I had the pleasure of being invited to the recent dinner in your honor, and I was particularly interested in your lecture. Had there been time for more questions I would have asked the following.

You are no doubt correct in arguing that an appeal for government funds will be more effective if it is based on opportunities for society rather than on the entitlement of scientists. Yet what looks like entitlement is really an appeal for support of basic research directed by curiosity about the world, together with recognition that the success of this enterprise has been multiplying the opportunities for further advances. The main justification for asking for tax money for this purpose is the historical evidence that the most important scientific breakthroughs, including ones with direct social benefits, cannot be predicted but have been the byproduct of such basic research. A striking example is molecular recombination of DNA -- not a single discovery, but the integration of many earlier esoteric discoveries in bacterial and molecular genetics. So the question is: if we emphasize only opportunities, and do not continually try to educate the public and legislators on the long-term benefits of basic research, is there not some danger that the result will be greater pressure on scientists to focus on targeted, short-term goals at the expense of untargeted research?

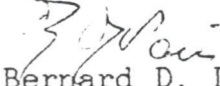
I do not expect you to take time from your busy schedule to comment on this particular formulation of some obvious ideas. But I thought they might interest you.

I am enclosing some of my recent writings on science and society, which focus especially on problems of the Office of Scientific Integrity and those raised by the Human Genome Project. The latter exemplifies the danger of having funding influenced too much by the understandable preference of legislators for a nice, definite goal -- in this case one of questionable value but great appeal.

I am also enclosing a description of a book that I have organized for the Amer. Acad. Arts and Sciences, for a general

audience, on The Genetic Revolution: Scientific Prospects and Public Perceptions; it is scheduled for publication this summer. A collection of my earlier writings on science and society, Storm Over Biology (Prometheus Books, 1986), deals with earlier controversies over genetic engineering, and more generally with problems engendered by the antiscience movement and by efforts to politicize science. If you are interested I would be happy to send you a copy.

Sincerely,


Bernard D. Davis
Adele Lehman Professor of
Bacterial Physiology,
Emeritus

Some problems with a crash program

BERNARD D. DAVIS

Bacterial Physiology Unit, Harvard Medical School, Boston, Massachusetts 02115, USA

THE HUMAN GENOME PROGRAM (HGP) is directed by a distinguished group of scientists and is supporting much excellent research; nevertheless, it has aroused widespread discontent in the biomedical research community. First, it is thought to be crowding out more productive R01 grants; and although this complaint may become less intense if the R01 crisis is alleviated next year, it will persist. A deeper complaint is that the sense of urgency surrounding the program is not scientifically justified.

Perhaps the deepest problem, however, is procedural. The HGP began, illogically, as a means of expanding the biological activities of the Department of Energy (DOE). NIH was initially reluctant but joined when the project's definite goal—to sequence the human genome serially—proved politically overwhelming, though it was soon recognized as unrealistic and is now postponed. Nevertheless, it is still central in a funding process that reflects the expertise of the DOE in appealing to Congress for large expenditures. This process encourages a good deal of hype. For example, we are told that locating the cystic fibrosis gene cost \$120 million—or \$60 or \$150—when in fact \$120 million is the cost of *all* cystic fibrosis research to date.

The record of allocating funds within science by such lobbying is not reassuring compared with methods that respond to the changing interest of young investigators in promising fields. The premature crash program of cancer research in the 1970s, initiated by pressure from influential laypersons, was not very cost effective. In a more current example, desperate AIDS victims, pressing for ever-expanding research, are clearly not in a position to evaluate the limits of effective funding. But what is novel about HGP is strong lobbying for one field from within the scientific community. Would it be desirable to have a similar push from neurobiologists and immunologists?

The current allocation gives one-third to DOE and two-thirds to NIH, and I am not in a position to evaluate the wisdom of this political compromise. But I would question whether the growth of the overall level of funding has been guided by a proper mechanism. In the appropriation for next year, Congress was evidently influenced by criticisms from some scientists, for it awarded only about half of the 80% increase requested. But next year we will again face the demand for building toward \$200 million a year (plus allowances for inflation). This level is not negligible: it might be compared with the current \$700 million for the wide variety of fundamental programs supported by the National Institute of General Medical Sciences.

The distribution of funds within the HGP also raises problems, for it seems to be excessively separated from the rest of the NIH granting program. One result is that a person studying a specific gene in *Escherichia coli* is much less readily funded than one who seeks a gene by genome sequencing. Moreover, the explosive growth and autonomy of the HGP, inevitably appears to give a selected group of scientists an improper advantage in funding.

Let us now look at the scientific criticisms that reinforce the concern over procedure. They are mostly directed at the ultimate goal of complete sequencing.

1) To some defenders this goal is an exciting challenge because it is the key to the chemical underpinnings of human nature. But this is a highly personal, esthetic judgment: not all of us wish to climb Mt. Everest. For many the sequence is only a tool and not a profound goal in itself.

2) If the real goal is thus not to catalog but to understand the human genome, by relating sequence to function, how can we best advance it? We have already learned a good deal through a function-based approach: the relatively straightforward procedure of moving from mRNA or a protein, via a cDNA, to its gene and regulatory regions. But blind se-

"The record of allocating funds within science by such lobbying is not reassuring compared with methods that respond to the changing interest of young investigators."

quencing, as a means of advancing our understanding, must overcome two obstacles. The problem of the cost of plowing through the "junk" (unfortunately misnamed) to find the interesting regions (ORFs) has been extensively discussed. The other problem is to find where and when the product of such a region works. Experts in the HGP could help the scientific community evaluate their program by presenting a detailed comparison of the scientific advantages and limits of the alternative function-based and sequence-based approaches.

3) The sequence-based approach also is clouded by special political and social problems. One is to determine how long its practitioners may withhold a sequence of interest that they have encountered. Others are the prospect of training a large number of scientists on projects that teach them only sophisticated techniques, and the effect of a "big science" atmosphere on the style of biomedical research.

4) Trying to understand the noncoding regions of the genome is a major scientific challenge, but it has received little discussion. The answers will surely emerge from ingenious study of a sample region of some chromosome, rather than by induction from a catalog of the 3 billion bases of all the chromosomes. The bulk of the genome would thus cease being "junk," and complete sequencing would then be much more interesting.

5) Jim Watson asserts that to motivate persons engaged in blind sequencing we must proceed on a scale that promises to reach the complete sequence within a person's lifetime—specifically, 15 years. But it is doubtful that this motivation will be important for most sequencers. Moreover, the goal and the deadline seem artificial. The function-based alternative would proceed step by step, accumulating useful knowledge and unpredictable breakthroughs along the way, and basing expanding support primarily on new, promising leads rather than on a deadline. There is as yet no assurance that the sequence-based approach is better. Indeed, an expanding HGP could even be counterproductive in terms of its own ultimate goal, if it should compete significantly with the

THE WHITE HOUSE
WASHINGTON

April 3, 1991

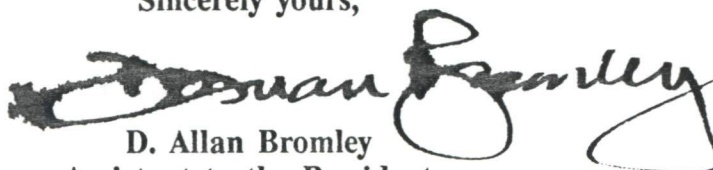

Dear Mr. Davies:

Thank you for your letter of March 4, 1991, inviting me to be the keynote speaker at your conference scheduled for June 11, 1991, at the Sheraton Hotel in Arlington, Virginia.

Given the importance of natural fluxes of carbon in the global carbon cycle, I would very much have liked to be a part of your conference. However, I am scheduled to be away from Washington during that time, so I must regretfully decline your invitation.

Thank you for thinking of me and let me offer my best wishes for the meeting.

Sincerely yours,



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

Mr. Terry Davies
Assistant Administrator
U.S. Environmental Protection Agency
401 M Street, Southwest
Washington, D.C. 20460



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 4 1991

OFFICE OF
POLICY, PLANNING AND EVALUATION

Dr. D. Allan Bromley
Science Advisor
The White House
360 Old Executive Office Building
Washington, DC 20506

Dear Dr. Bromley:

The U.S. Environmental Protection Agency, the U.S. Forest Service, and the American Forestry Association are hosting the Second North American Conference on Forests and Global Change. We would like to invite you to be the keynote speaker at lunch on the first day of the conference. The conference will be held June 11-12, 1991 at the Sheraton Crystal City Hotel in Arlington, Virginia.

The first conference, held last May in Washington, focused on the issue of forestry responses to climate change. This year's conference will be more technical. It will focus on innovative strategies to sequester and store carbon in forest and vegetative systems, and the policy tools required to implement them. We would like you to give your personal vision of how the U.S. government and the world could address pressing forestry issues, such as a global forest agreement, climate change, and biodiversity, and what the U.S. contribution could be. This is an opportunity for you to address 200 or more of the primary experts, analysts, and decision makers in this area.

We would welcome your participation in as much of the conference as you can attend. Enclosed, please find a copy of the conference agenda. If the lunch presentation is not convenient for you, we would welcome you as a featured speaker at a plenary session or at the second lunch.

If you have any questions you can call Dennis Tirpak, Director of the Climate Change Division at (202) 475-8825, or Neil Sampson of the American Forestry Association at (202) 667-3300. Thank you very much for your consideration.

Sincerely,

Terry Davies
Terry Davies, J
Assistant Administrator

Sponsor:
Subject:
Audience:
Date:
Location:
Contact:
Conflicts:

EPA, Forest Service, and American Forestry Association
Forests and Global Change
200 experts and policymakers in forestry
June 11-Tuesday or June 12-Wednesday
Arlington
Terry Davies, EPA
You might be speaking in San Jose on June 12.

YES

NO

Tell Davies that he will be going to Calif. on these days

3/28/91

THE WHITE HOUSE

WASHINGTON

March 20, 1991

MEMORANDUM FOR NANCY SOPER
PHYSICS DEPARTMENT
YALE UNIVERSITY

FROM:

D. ALLAN BROMLEY *YAB*

SUBJECT:

WILLIAM EDWARDS DEMING

Herewith a page of bio data for W.E. Deming and a suggested inscription for his Wilbur Cross Medal. I look forward to seeing you soon!

William Edwards Deming

A true pioneer in the use of statistical methods of quality control, William Edwards Deming's mark is recognized throughout the industrialized world and, in particular, by the Deming Prize awarded annually in Japan for outstanding achievement in the quality control field.

A native of Sioux City, Iowa, Deming received his elementary education in a one room school and, graduating in a class of eleven from secondary school, he entered the University of Wyoming in 1917. After receiving the B.S. in physics, he taught at the Colorado School of Mines and continued his studies at the University of Colorado receiving an M.S. in mathematics and physics.

Entering graduate studies at Yale in 1924, he received his doctorate in mathematical physics in 1928 and joined the U.S. Department of Agriculture. It was during this period that Deming first became interested in matters of quality control, editing a series of lectures given by a long time friend Walter Shewhart under the title, "Statistical Method from Viewpoint of Quality Control". He also consulted with the Census Bureau which was beginning to consider sampling techniques and in 1939 he joined the Bureau as its head mathematician and statistician. Here Deming developed his fundamental concepts of quality control in both manufacturing and non-manufacturing environments and began to be invited to give lectures on quality control across the United States. Despite widespread interest in his work U.S. industry did not respond effectively to Deming's efforts.

In 1946 Deming left the Bureau to set up a private consulting practice in statistical methods. It was as a consultant to the U.S. War Department that he first visited Japan in 1947, returning at Japanese invitation in 1950, 1951, 1952, 1955 and 1956. In contrast to the U.S. reaction, Japanese industry responded immediately and enthusiastically to quality control concepts. Deming rapidly achieved legendary status in Japan as the father of "quality-circles." The Deming Prize was established in 1950 on the occasion of his second Japanese visit.

When Emperor Hirohito of Japan awarded Deming the Medal of Sacred Treasure, the citation says that "The Japanese people attribute the rebirth of Japanese industry and its worldwide success to Edwards Deming."

It was not until Deming was featured in an NBC white paper, "If Japan Can, Why Can't We?", that U.S. industrialists became aware of the true revolution in manufacturing quality for which Deming had been responsible in Japan.

Truly a prophet who for far too long was "without honor in his own country" William Edwards Deming, the father of quality control, has placed a permanent, personal imprint on manufacturing and on other activities worldwide too numerous to mention.

Yale takes great pride in awarding a 1991 Wilbur Cross Medal to a truly distinguished son, William Edwards Deming, Ph.D. '28.

The engraving on the medal for William Edwards Deming should read.

William Edwards Deming
Ph.D. 1928
The Father of Quality Control

APPENDIX B

William Edwards Deming: A Brief Biography

William Edwards Deming was born in Sioux City, Iowa, on October 14, 1900. Shortly thereafter, when free land became available in Wyoming, his father, William, succeeded in obtaining some and moved the family out there, first to Cody and then to Powell, where their first house was a tar paper shack about the size of a freight car. It was a hard life. Deming remembers "his mother taking him and his brother by the hands and praying for food."

His mother had studied music in San Francisco, and she gave piano and voice lessons in Powell. Some students who could not pay for lessons brought food or other commodities the family could use in exchange.

The first school Deming attended in Powell had pupils ranging from the first to the sixth grade. All the students were in one room with the same teacher. When he was twelve, he took his first job for \$1.25 a week.

After graduating from high school in a class of eleven students, he entered the University of Wyoming in Laramie in 1917. There was no tuition fee, and Deming subsisted on \$50 in savings, money earned working, and periodic supplements from his family.

He graduated from the University of Wyoming in 1921, receiving a B.S. with a major in physics. He stayed on for a year to study mathematics and help teach engineering. He then accepted a position teaching physics at the Colorado School of Mines, where he stayed for two years. He also enrolled at the University of Colorado

at Boulder and graduated in 1924 with a master's degree in mathematics and physics.

Because Deming had distinguished himself in his studies, one of his professors suggested that he go to Yale University. He would later say, "I thought Professor Lester had lost his mind." Nevertheless, Professor Lester, who had studied at Yale himself, wrote the university on Deming's behalf. He was offered a scholarship plus a part-time job as instructor at \$1,000 a year. He graduated from Yale in 1928 with a doctoral degree in mathematical physics. His dissertation was on the packing of nucleons in the helium atom.

While studying for his Ph.D., he worked during the summers at the Western Electric Hawthorne plant in Chicago, doing research on telephone transmitters. He came into contact with a number of scientists, mathematicians, and statisticians who greatly influenced him, including Walter A. Shewhart, who would later be recognized as the father of the statistical control of quality.

Deming's first full-time job was in the Fixed Nitrogen Research Laboratory of the United States Department of Agriculture (USDA). He was also a special lecturer in mathematics and statistics at the Graduate School of the National Bureau of Standards from 1930 to 1946. From 1933 to 1943, Deming was head of the Department of Mathematics and Statistics of the Graduate School of the USDA. During this period Deming and others were conducting much of the basic research on sampling and other aspects of modern statistics. He had many of the great names in the field appear as guest lecturers at the graduate school of the USDA. Almost all of the thirty-eight scientific papers he wrote through 1938 were on physics and physical properties of matter, but his range of lecturing and the application of statistical methods was broadening to other fields.

In March 1938, Deming's longtime friend Shewhart gave four lectures at the USDA; with Deming's editorial assistance he published a book covering the material of these lectures, *Statistical Method from the Viewpoint of Quality Control*. Deming wrote the preface for the manuscript. In 1980, when Shewhart's pioneering work *Economic Control of Quality of Manufactured Product* was republished to commemorate its fiftieth anniversary, it was Deming who wrote a new dedication.

In the late 1930s the United States Census Bureau began toying

with the idea of sampling rather than relying on a full count. The Census Bureau needed the best experts available, so they asked Deming to join them, which he did in 1939 as head mathematician and advisor in sampling. The advantages of sampling turned out to be greater than expected. Not only was it reliable and cost-effective, but the swift return of the results made census figures much more effective as a business and policy tool. Today we consider sampling in both the private and public sectors as commonplace, but then it was revolutionary.

It was at the Census Bureau that Deming began using quality control methods in a nonmanufacturing environment. Building on Shewhart's work, he employed statistical methods of quality control to provide quality and reliability. The Census Bureau is one of the real success stories of government service. It provides accurate information on a broad range of areas at a cost that no other organization, public or private, can match. Deming also began lecturing on quality control in the United States.

In 1946 he left the Census Bureau to establish a private practice as a consultant in statistical studies. He also joined the Graduate School of Business Administration at New York University. As a consultant to the War Department he first visited Japan in 1947 and returned in 1950, 1951, 1952, 1955, and 1956. The Deming Prize was established in Japan in December 1950.

In 1955, W. Edwards Deming received the Shewhart Medal, which is awarded annually by the American Society for Quality Control. His scientific papers today number over 170. He has written seven textbooks and countless articles.

In 1980 an NBC white paper—"If Japan Can, Why Can't We?"—prominently featured Deming, outlining his role in Japan's economic transformation. That brought his name to the attention of chief executives in the United States who previously had not been aware of his contribution to management and quality. His already lively consulting practice became even more so, and today his schedule is booked up to three years in advance. Each year he gives more than twenty four-day seminars to managers in the United States, and he travels every summer to Japan for the awarding of the Deming Prize. He continues to teach at NYU, sponsors clinics for statisticians and other technical people, and consults leading companies worldwide.

NATIONAL MEDAL OF TECHNOLOGY**1987 Recipients**

JOSEPH V. CHARYK, Communications Satellite Corporation

For employment of the concept of the geosynchronous communications satellite systems as the basis for a global telecommunications system, established by international agreement, and for his guidance in the development and growth of the intelsat system, which today services over 150 nations and territories.

W. EDWARDS DEMING, Private Consultant

For his forceful promotion of statistical methodology, for his contributions to sampling theory and for his advocacy to corporations and nations of a general management philosophy that has resulted in improved product quality with consequent betterment of products available to users as well as more efficient corporate performance.

JOHN E. FRANZ, Monsanto Corporation

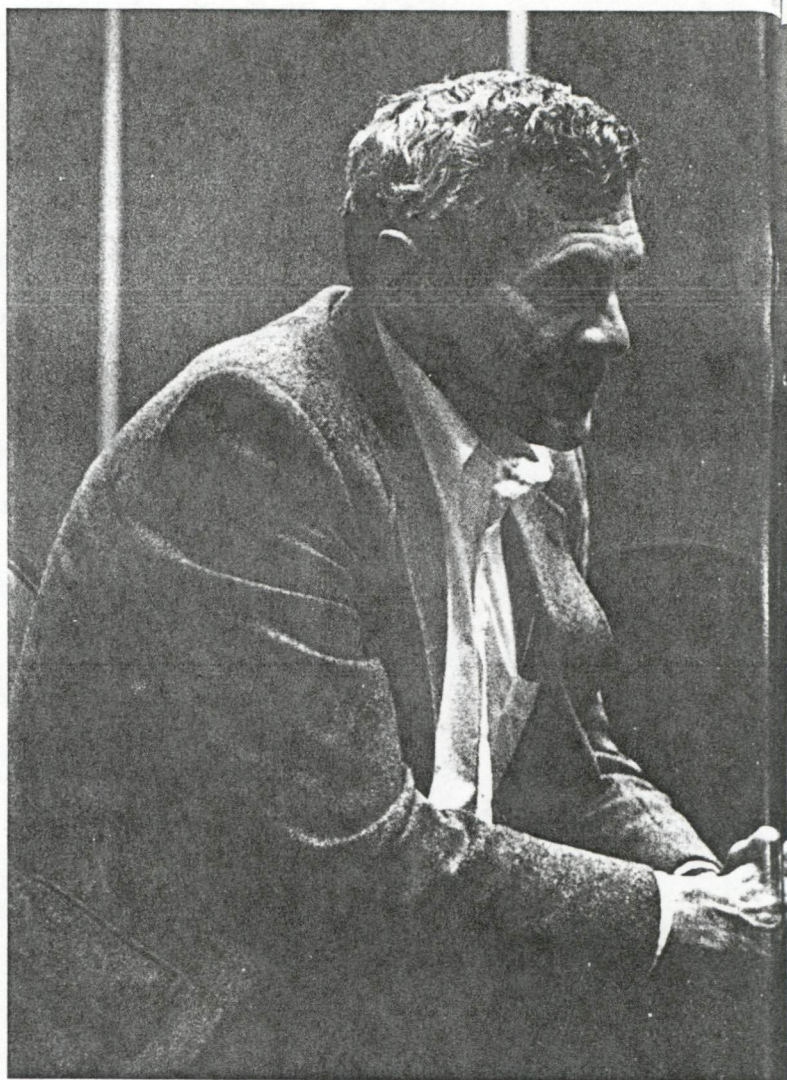
For his discovery of the herbicidal properties of glyphosates which have had significant consequences upon the production of agricultural food and fiber as well as upon agricultural practices throughout the world.

ROBERT N. NOYCE, Intel Corporation

For his inventions in the field of semiconductor integrated circuits for his leading role in the establishment of the microprocessor which has led to much wider use of more powerful computers and for his leadership of R&D in these areas, all of which have had profound consequences upon which aspects of living, both in the United States and throughout the world.



A pioneer in statistical analysis, Deming makes a point with pen while teaching class at New York University.



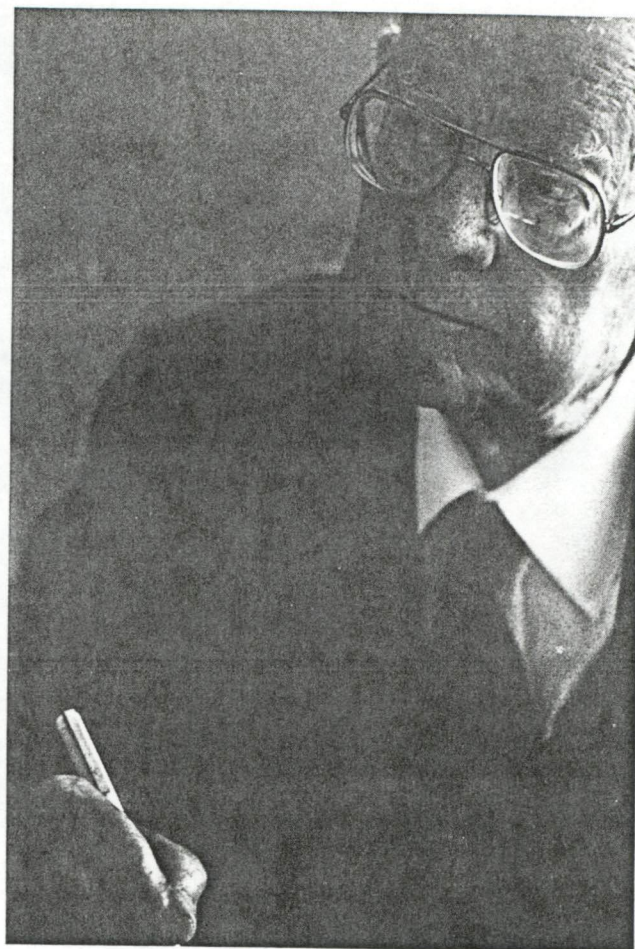
By Lloyd Dobyns

Ed Deming wants big changes, and he wants them fast

He is the capitalist revolutionary who sold Japan on the notion that quality drives profits up—and now he's trying to sell us



He has always looked younger than he is, but even with that he is clearly old. He moves slowly through the hotel lobby, preceded by his ample stomach, leaning forward slightly and looking straight ahead through his glasses. From a distance, he appears to be completely bald, but as he gets closer, you see that his hair is white and cropped close to his skull. There are hearing aids in both ears. He is, as always, dressed in a custom-made suit. All of his jacket pockets are stuffed—clippings, a calculator, scraps of paper, a little magnifier, file cards, a small notebook, a pocket diary and whatever else he's picked up—and the pocket of his white shirt holds no fewer than a half-dozen pens and markers. On the lapel of his jacket there is a round, thick, gray pin about the size of a dime. The only thing about him other than his age that attracts anyone's attention this morning is that his assistant, an intern and doctoral candidate in business management, is an attractive, well-dressed woman young enough to be his daughter's daughter, and they are walking through the lobby holding hands. You get a sense that for him, it's partly for support and partly for the hell of it.



He listens intently to one of Ford's quality-assurance managers (left) after body-assembly-division meeting. Then he jots notes during session with Ford executives at the corporate headquarters in Dearborn, Michigan.

His business card reads "W. Edwards Deming, Ph.D., Consultant in Statistical Studies." It would be more accurate if it added, "and Capitalist Revolutionary." He wants changes, and not little ones, in everything—business, industry, education, how we live, how we teach our children and how we deal with one another. Deming wants something better for us all, and for most of his 89 years he's been fighting to get it. He knows from experience that what Machiavelli wrote is true: "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success than to take the lead in the introduction of a new order of things."

He initiated a new order of things in Japan. It was a 49-year-old Ed Deming, tall and crew-cut, who in 1950 started teaching Japanese managers, engineers and scientists how to manufacture quality. An important step was to teach them to use statistics to find out what any system would do, then design improvements to make that system yield the best results. That idea sounds so logically simple that the tendency is to say, "Everyone knows that." No, everyone doesn't.

Photographs by Cameron Davidson



En route from La Guardia airport in a limo, Deming and an intern go over his appointments book. At 89, he keeps a hectic schedule, consulting and teaching at seminars here and abroad, practicing what he preaches: "Improve constantly." His enemy is the status quo.

Americans have a penchant for solutions that are easy to understand, easy to do, aimed at a specific goal and fast—ten nonthreatening steps to nirvana in 30 days. When it comes to improving what we do, there seems almost to be a flavor-of-the-month approach with each new, highly touted technique stepping on the heels of the one that went before—management by objective, management by results, management by problem report and resolution. Those are the cookbook methods, where you blend the worker and the machine, stir in a pinch of raw material, add a promise of a bonus (or a threat of dismissal), half-bake for 30 minutes and declare a dividend. It's easy to explain, easy to understand, and it doesn't work.

Deming teaches that the more quality you build into anything, the less it costs. That, too, sounds self-evident, but it's not. Maryann N. Keller, an automotive industry analyst and managing director of a brokerage firm, believes that the most profound change in the American auto industry in the past ten years was the realization that "quality can cost less because you design it in rather than inspect it in." The traditional American idea of quality is, as Keller says, to inspect it in; that is, you build a whole lot of widgets, inspect them and separate the good from the bad. The bad can't be sold, but they cost a lot. Not only must all those inspectors be paid, but a bad widget takes the same amount of raw material, machinery, work time and attention as does a good widget. That explains why, typically, about 25 percent of any manufacturing plant's budget goes for repair and rework. That's why

so many manufacturers think quality costs more, but what actually costs is a lack of quality.

Vernay Laboratories in Yellow Springs, Ohio, makes small, precision-molded rubber parts for the automotive, home appliance, pharmaceutical and medical industries. Before the company heard of Deming in 1983, there was one inspector for each employee molding parts, and to insure quality, those inspectors checked everything that was produced. Think of that: nearly half of the production workers were paid to check what the other half did. In five years, doing what Deming taught it, Vernay cut its ratio of inspectors to molders by 75 percent. In the same five years, the plant's scrap and returned-product rates were cut by three-quarters, and productivity in the plant was up 30 percent. Quality was up, costs were down and the savings could be given to the customers. "One of the great pleasures I've had over the last five years," says Dale Piper, national sales manager, "was walking into the purchasing office of one of our larger customers and telling them that we were going to be giving them a price reduction, a completely unsolicited price reduction."

The basics of Deming's method are contained in a list of objectives he calls "the 14 points." These managerial imperatives are more philosophical than mechanical. The first of them is to "create constancy of purpose." You have to decide what business you're in

Lloyd Dobyns is currently working on a television documentary and book about quality control. The book will be published by Houghton Mifflin.

and how you can stay in that business. It sounds deceptively simple, until you try it. Buggy whip makers undoubtedly believed they were in the business of making buggy whips, which explains why they are no longer in business at all. They were actually in the business of vehicle acceleration; just making buggy whips, even the world's finest-quality buggy whips, wasn't enough. Part of constancy of purpose is staying ahead of the customer, not only meeting present needs, but planning for future needs, as well.

The Ford Motor Company began consulting with Deming in 1981, and one of the first questions he asked was about constancy of purpose. Top management began to think about it. *Eighteen months later* Ford had a 350-word statement of its missions, values and guiding principles. By now, there can't be a Ford employee, supplier or dealer anywhere in the world who does not know that "Quality is Job 1." Donald Petersen, Ford's recently retired chairman and chief executive officer, says, "I am a Deming disciple." And he adds, "Those enterprises that don't adopt a quality culture simply are not going to succeed."

The issue is even broader than that. Improving quality, Deming says, automatically increases productivity, one of the measures economists use to judge how

the economy is doing. Ours is improving, but not at a pace with Japan's. At current rates, the United States' productivity will double in 120 years, Japan's in a generation, meaning its children's standard of living will double while our children's will stay about the same.

When he first went to Japan, Deming was certain he could teach the Japanese how to join the leading industrial nations by improving quality. "I think that I was the only man in 1950," he says, "who believed that the Japanese could invade the markets of the world and would within five years." The lapel pin that few in this country could recognize represents Japan's Second Order Medal of the Sacred Treasure, awarded to him by the late Emperor Hirohito. The citation says the Japanese people attribute the rebirth of Japanese industry and its worldwide success to Ed Deming.

As famous as Deming is in Japan, he was comparatively unknown in the United States until June 1980, when he appeared in a network television documentary titled, *If Japan Can, Why Can't We?* It compared industrial productivity in Japan and the United States. I was the writer and narrator. Cecelia S. Kilian, Deming's secretary since 1954, and known almost universally as Ceil, said that starting the next morning, "Our phones rang off the hook. . . . Dr. Deming's mail

On his way to catch a plane, Deming pauses to confer on an escalator with an associate. He tells clients that increasing quality doesn't just lower costs; it also increases productivity, one of the measures that tell how well the economy is doing.



quadrupled, and beyond." Petersen at Ford was one of the eventual callers. By late 1987 he told an interviewer, "We are running well over 50-percent-better levels of quality in our products today, and I dare say that I would not have predicted that much improvement in this short time." That same year, 1987, General Motors called Deming. The word was spreading in the industry: building quality drives costs down and profits up.

At an age that most American men will never reach, Deming continues trying to transform (his word) the United States, to make it possible for us to join what he calls "the new economic age." To teach corporate managers how that can be done, he works six days a week and is booked into 1991. Ceil is his whole staff.

Deming is never quite satisfied, so any attempt to chisel what he says into stone is frustrated by his insistence on constantly trying to improve or clarify his thoughts. But that continual improvement is at the heart of his teaching. It is one of his 14 points: "Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs." To get to that point, Deming says, you not only need constancy of purpose, you also have to recognize that we're in a new economic age with a single global market, that mass inspection does not produce quality, and that buying from the lowest bidder is costly. To get good supplies, Deming says, you work with a single supplier to improve his quality and lower his costs, cultivating a long-term relationship in which both of you will profit.

Cheaper is not always better

That last one leaves people in purchasing departments almost in shock, since it is a basic tenet of American industry that you play one supplier against another, demanding and getting lower prices, and if one supplier won't cut his price, another one will. That's the way you cut costs and improve profits, and everyone in business knows that. And like a great many other things that everyone knows, it's wrong. Deming tells the story of a shoe manufacturing company where productivity dropped like a rock in a well, and a consultant was called in. The first thing the consultant did was what the typical American manager would rather die than do: the consultant went on the factory floor and asked the workers what went wrong. Shoes are sewn together, and it takes an enormous quantity of thread. Sewing machine operators said the thread kept breaking, so they spent half their day rethreading the machines. You know the end of this story. Some time earlier, some genius in purchasing found a company that would sell thread a penny a bobbin cheaper than their regular supplier, and to save a penny a bobbin, the company's productivity was cut in half.



Waiting for a plane in Detroit, Deming talks with a magazine editor. He was not well known in this country until he appeared in a 1980 TV documentary that compared Japanese productivity with our own.



Back in his office, which is located in the basement of his Washington, D.C. home, Deming dictates to Cecelia Kilian. She has now worked as his secretary for 36 years. Kilian is the only full-time employee on his "staff."

The rest of Deming's 14 points basically deal with management and labor and their relationship. He says quality is made in the boardroom, but everyone must have a part in changing the company. Management must learn about the responsibility for quality, must learn how to lead, instead of giving orders, and must make it possible for everyone to work together for the good of the company.

Everyone already knows that? If, in the typical American firm, everyone is working for the good of the company, then why are different divisions within that company competing? Why is it necessary to give employees annual ratings or performance appraisals? What's more important to you, getting a good rating

for yourself, or helping another person improve so that the whole company will prosper? Why are there numerical goals or work standards? Are we trying to make quality, or are we satisfied to make daily quotas?

If you want to make quality, management leads in the design of product and service, but everyone has to understand where they're going. If you tell someone to wash a table, the order doesn't mean anything unless the worker knows why. Is it being washed to serve lunch? Simple enough and quickly done. Is it being washed as an emergency operating table? Not easy, but it can be done. Is it being washed to go into a computer "clean room"? Can't be done.

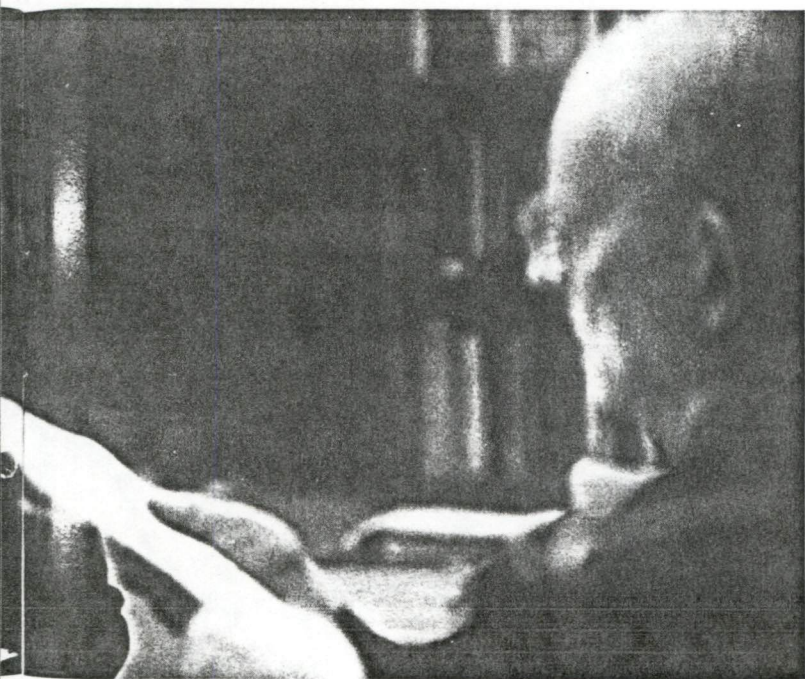
Job training alone, Deming says, is not enough; the

company has to help with employee education in a more general way, too. At Ford there are joint company-union education programs, everything from helping you brush up on your high school math to studying for your college degree. College courses are taught at no cost to employees in learning centers at Ford facilities or at the local union hall. The idea is this simple: the smarter everyone gets, the more everyone will be able to help the company.

W. Edwards Deming is an unlikely capitalist revolutionary. Had he become a Marxist, it would be more understandable. If he ever saw a silver spoon as a kid, it belonged to someone else. He was born in Sioux City, Iowa, on October 14, 1900. With his mother and father, he and younger brother Robert went to Wyoming seven years later. Wyoming was the frontier, and his father had staked a land claim there. Sister Elizabeth was born in a four-room tar-paper shack in Powell. In winter, snow blew through cracks in the walls and around the windows. Deming remembers kneeling in the shack with his mother and brother and praying for enough to eat. "I think I had a job when I was 8 years old or 9," Deming says. "Worked in a hotel, night and morning, before and after school, a job that wouldn't exist today." He carried in kindling and coal, emptied washbasins, tended the boiler. "A dollar and a quarter a week, but those were gold dollars."

In the fall of 1917, his saved money in his pocket, Deming took a train to the University of Wyoming at Laramie. "I studied engineering," he says, "but I really didn't know what engineers did. The course appealed to me—mathematics, thermodynamics, electrical circuits." To stay in college, he worked at anything that paid; after four years, he left Laramie with about the same amount of money he'd arrived with.

Deming taught and finished work on his PhD in



Even in a rare quiet moment at home, Deming is a study in concentration as he works at his piano. For 65 years he has composed masses and other music as an avocation. Some of his pieces have been published and performed.





On last day of classes at NYU, Deming takes time to autograph copies of his book, *Out of the Crisis*.

mathematical physics at Yale in 1927, then went to work for a research laboratory affiliated with the Department of Agriculture in Washington, D.C. He had other offers, good ones in private industry, he recalls, but he decided on this one and, he says now, "That was no mistake. . . . There were great men there." (And at least one great woman, Lola E. Shupe, his assistant and coauthor of several papers, whom he married in 1932. She died in 1986.)

Deming had learned to use statistical theory while studying physics. At the Fixed Nitrogen Lab, he devised statistical methods to replace some experiments, saving time and money. Impressed, one of his bosses introduced him to Walter Shewhart, then at the firm now known as AT&T Bell Laboratories, who was working to improve the quality of telephone equipment. Shewhart wanted the expression "as alike as two peas in a pod" to be replaced by "as alike as two telephones." He believed that could be accomplished with statistical analysis.

During World War II, it was largely through Deming's efforts that 35,000 American engineers and technicians were taught to use statistics to improve the quality of war matériel. That work brought him to the attention of the Union of Japanese Scientists and Engineers (JUSE). When the war was over, Japan was little more than a pile of rubble and its industrial capacity was severely crippled. JUSE asked Deming to help its members increase productivity. In July 1950 he met with the top management of Japan's leading com-

panies, and he gave eight daylong lectures titled "Elementary Principles of the Statistical Control of Quality" to 230 Japanese managers. It was, essentially, the same course he had taught Americans during the war.

Why did his teachings catch on in Japan but not here? Because, Deming says, the Japanese knew they were in an economic and industrial crisis and we don't. Yet here we are in 1990, the world's most indebted nation, borrowing heavily from, of all people, the newly wealthy Japanese. Deming tells students at a four-day seminar in Texas that we can recover. Then he adds, "Nobody's sitting here *predicting* that we'll survive. We may not. There's no regulation saying we must survive. Purely voluntary." And he tells a group in Ohio, "We can rise from the ashes like a phoenix, but it will take a transformation to do it."

By transformation, he means adoption of his quality philosophy. It is not so much a recipe of dos and don'ts, although there are some, as it is a method of continual improvement that involves reducing variation. American manufacturers say that they are already doing that, that they have strict specifications for every part. A quick story. An American car company was having trouble with transmissions made at one of its plants here, and warranty costs were enormous, a drain on profits. The same transmission, built to the same specifications at a plant in Japan, was not causing problems. Engineers carefully examined 12 American transmissions; variations existed, but all were well within specifications. A quality-control inspector would have been delighted with every one. When the 12 Japanese transmissions were tested, an engineer reported that the measuring equipment had broken. It hadn't; in those transmissions, there simply was too little variation to measure. They didn't just satisfy the specs; for any practical purpose, they were identical.

Staying close to what is best

That story's true; this one's made up. Assume that we all work in a room together, and we know by statistical analysis that we produce our best work when the temperature is 68 degrees F. But if it's 67 or 69, the loss in terms of the quality of our work is so imperceptible that it simply doesn't matter. Now, should the temperature fall to 58 or rise to 78, the loss will be enormous. Take that same idea and apply it to specifications. Everything inside a given set of specifications is not the same. Some are worse than others, and the farther away you get from what is best, the worse it is and the greater the loss in quality will be.

Statistics alone cannot assure reduced variation, Deming says; it takes everyone, management and labor, working together. To get that kind of cooperation you have to throw out much of what is currently ac-

A lifelong crusade for quality

cepted as good management practice. Not only do you have to do away with bonuses and incentive pay because they create competition; once you adopt the Deming method little else stays the same.

Ben Carlson, executive vice president at Vernay and chairman of its Deming Steering Committee, says the Deming method "changes the relationship with your customers; it changes the relationship with your suppliers; it changes the relationship you have with your employees." Customers become the most important people in your business. Unless the customer is so delighted that he's not only willing to come back but eager to bring his friends, you can close the door now and save time. Suppliers can no longer be played off one another for lower prices. They become your partners, and you have to help them improve so they can give you continually improving supplies for lower prices. And if you and your employees don't work together in mutual respect toward the same goal, how good the supplies are won't matter. Corny as it sounds, Deming wishes work could be nicer, more satisfying.

In teaching people to be nicer, he himself can be abrasive. Polite to the point of courtliness in social situations, he can be short-tempered and intolerant at work. He always tells people at his seminars that the object is "to have fun," but when one person he is raking over the coals complains, "Dr. Deming, I'm not having fun," he leans back in his chair, smiles broadly and says, "I am."

Deming works as a consultant to private companies, but more people probably know him through his public seminars, most of which are run by Nancy Mann, who has a PhD in biostatistics. People are standing in line to get in. Deming mentions one seminar—500 vacancies, 3,000 applicants. There are 14 of these seminars a year in this country and England with 500 to 600 students each, and a waiting list of about 100 for each seminar.

"Students" is perhaps misleading. At a seminar I attended in Dallas, the people were mostly in their 30s and 40s—managers, engineers and technicians from major corporations in all types of business, defense contractors, officers of the Armed Forces, health-care insurers. Deming lectures morning and afternoon for the four days, sometimes from notes, sometimes from memory, but with a good teacher's sense of when the lecture is becoming too intense, as it did at one seminar when he tried to make the class understand that there is no true value of anything, that whatever number you get depends on how you count, and if you change the way you count, the number will change. People think the speed of light is a true value, Deming says, but it isn't; there were ten different published figures for the speed of light between 1874 and 1932. Then in his best professorial voice, which is deep and impressive, Deming quotes Galileo as saying, "If the speed of light is not infinity, then it's awfully damned fast." The class roars. The point is unforgettably made.

Deming wants American business and industry to prosper. "All I have to offer is to improve profit," he says, but his method is not easy to understand. The standard American corporate questions about quality improvement are, "What do we do? (But keep it simple)" and "How long will it take? (But keep it short)." With Deming what you do is continually improve, not in great leaps forward, but a little here, a little there, and it never gets any easier. You change the way you think, unlearn everything about management you've been taught, and develop an understanding of statistics and psychology, an understanding of how people learn and what makes them change, and an understanding of people's need to take pride and joy in their work. How many steps are there? No one knows. How long will it take? The rest of your life, but—here's the good news—you should start to see results in three to five years. Why should you do that? Because the people who have tried it say that it works. And not much does these days.

At the hotel, it's early evening, and his lecture is over. Deming is going to his room to rest before dinner, a rare concession to his age. He comes down the hallway, the same attractive, well-dressed young woman holding one hand, and a tall, striking woman, a seminar coordinator, holding his other hand, and they are skipping. Skipping! Three kids home from school. W. Edwards Deming, PhD, Consultant in Statistical Studies and Capitalist Revolutionary, wears a smile of the most childlike pleasure and delight.

In a meeting, Ed Deming gives the impression he's lost in thought. Although he *is* thinking, he's never lost.

FEATURE

Total Quality Management

Deming: A Lesson From The Master?

'There is no substitute for knowledge'

By Lucy Reilly

SANTA CLARA, Calif.—Dr. W. Edwards Deming rose slowly from a solitary chair on the conference dais, uncoiling his seemingly larger than six-foot frame as a physical exclamation point to the statement:

"The best way to predict the future is to make it yourself. And don't tell me you can't do it. You can do it. Make your own future. Don't just be a victim of what other people do," the 90-year-old quality guru admonished 675 people attending his recent four-day seminar here.

Deming, the American statistician tapped in post-World War II to export his philosophies on quality to Japan, continues to exhort audiences around the world to heed his teachings or suffer the consequences.

"How could they know? How could they know?" roared Deming, referring to U.S. industry. The only way to transform a corporate climate into one of quality is to instill a "profound knowledge," he repeated often throughout the eight-hour days of lectures. "There is no substitute for knowledge."

And that, Deming said, can only be learned from a master. From the master.

Although Deming is generally credited as the father of the quality revolution worldwide, he is joined by a handful of other senior figures: Crosby, Feigenbaum, Juran and Taguchi. While many of the quality gurus are active on the lecture circuit, perhaps none remain more engrossed than Deming, who draws audiences from 500 to 2,000 on average around the globe virtually every week of the year.

Renowned as a cantankerous, feisty theoretician, Deming surprises his audiences with his energy, disarming charm, intellect, dry wit and compassion. But beware the "student" who questions the validity of his theories.

At his conference here in March, Deming demanded one executive explain and

defend the increasingly widespread term Total Quality Management before a packed audience. Deming glowered at the executive, who attempted to explain the ubiquitous term in a polite manner. Deming gradually let the executive off the hook, but by then the lesson was clear—don't question the master unless one doesn't mind reproach before an audience of titrating peers.

"This is an easy way to make a fool of yourself in front of 1,000 people," uttered one attendee from Raychem Corp.

Holding court before packed audiences, Deming employs a Socratic method of teaching that stimulates some, while frustrating others. Nonetheless, attendees flock by the hundreds to Deming during breaks, seeking autographs and a chance to shake the venerated teacher's gnarled right hand.

At times, audiences seems more enthralled by Deming's demi-god reputation in the corporate world than with his actual teachings. And therein lies the problem: although Deming's teachings set into motion a snowball effect of transforming cultures into ones of quality, many believe the United States must inculcate a variety of quality programs—not just Deming's. The United States needs its own recipe for achieving total quality, Robert Galvin, chairman of Motorola, said in an

interview last week.

Deming's star-status does not wrap his principles in a gold-plated guarantee. Science continues to transform over time with updates, improvements and, occasionally, radical changes in perceptions, Galvin said.

What Motorola founder Paul Galvin did in the 1930s and 1940s to propel the company to the pinnacle of industry was appropriate for that particular time, said the 67-year-old Galvin of his father. However, he noted, his father's theories would not be the appropriate method for opera-

tions for the 1990s.

The beliefs of the Paul Galvins and Demings of the world must not be forgotten, nor must they be adhered to blindly, the Motorola chairman said. The nation must take those seeds sown so long ago and cultivate them.

Deming had a "totally constructive influence on quality in Japan," Galvin said. And, thanks to Deming, the American process has been "immensely enlightened. Quality is the seminal and essential ingredient in everything we do."

Since landing the nation's first Malcolm Baldrige National Quality Award in 1988—patterned after Japan's annual award for quality named after Deming in 1951—Motorola has become regarded as the nation's role model in quality. Since its recognition three years ago, the company has implemented rigorous standards for all its suppliers, including mandatory application to the Baldrige process.

But don't mention the Baldrige award, named after former Secretary of the Department of Commerce Mac Baldrige, to Deming. Forgotten in his homeland until the quality boom in the mid-1980s, Deming was, outside of Japan, a veritable unknown. But as Japan's competitiveness

began to produce economic advantages during the last decade Japanese companies credit Deming for their success.

The Baldrige Award is "pitiful," Deming charged. "No one can imagine the damage that will come to our country from such misguided efforts."

Conference attendees and organizers cringed at his comments, knowing the wallop they could pack to bruise the reputation of the Baldrige award.

Yet only weeks before, Deming professed to a reporter that he knew nothing about the Baldrige award. "What good could it do?" Deming asked after a comparison was drawn with the Deming Prize. "[It's] nonsense. Sheer nonsense. It doesn't mean a thing. It doesn't tell you anything about transformation."

Deming is known to utter such caustic statements in moments of bitterness only to regret them later, said one executive with the Los Angeles corporation, Quality Enhancement Seminars, which manages Deming's seminars.

However, it is because of that, that many of the nation's CEOs have maintained their distance from the man upon whom the Japanese bestow great reverence.



DEMING'S 14 POINTS

1. Constancy of purpose
2. Adopt the new philosophy
3. Cease dependence on mass inspection
4. Cease doing business on price tag alone
5. Continual improvement of process
6. Institute training on the job
7. Institute leadership
8. Drive out fear
9. Breakdown barriers between departments
10. Eliminate slogans, exhortations, and targets
11. Eliminate numerical quotas
12. Allow pride in workmanship
13. Institute a program of self improvement
14. Do it

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90-Year Wonder Scorns U.S. Quality Movement

Less than five miles from the White House resides one of Japan's greatest industrial heroes—Dr. W. Edwards Deming, one of the founding fathers of quality control and largely responsible for making Japan what it is today.

Deming went to Japan at the behest of Gen. Douglas MacArthur in the late 1940s and early 1950s to help rebuild the post-war economy. In 1951, Japan honored Deming by naming what has become its most prestigious industry award after him. In 1960, the Emperor of

Japan decorated Deming with the Second Order Medal of the Sacred Treasure, the first American to receive the honor.

Despite such accolades abroad, Deming remains a relative unknown in the United States. Even those in industry familiar with his teachings are surprised when they discover that Deming has lived for more than 40 years in a quiet Northwest Washington neighborhood just off Massachusetts Avenue.

His modest, three-story home, which does little to deter the 90-year-old from hiking up and

down stairs, is filled with Japanese gifts and momentos. Sunlight streams across a baby grand piano, covered with liturgical works written by others and spiced up by Deming because he considered them "boring."

"I know more about music than I do anything else," Deming said in a recent interview at his home. When asked if he would play the piano for a guest, the perfectionist replied: "No, I'd only murder it."

Meeting Deming, warned one well-known U.S. technologist to a reporter, is "sort of like meet-

ing God." Deming is "an Adm. Rickover-type person," said the technologist, who has worked with Deming. He recognizes that the quality guru has two frailties: a strong ego that overcomes everything else and an obsession with his own convictions.

To sit with Deming for an hour or so is a return to the classroom and a discussion with an irascible, but favorite, professor. Deming relegates all comers to the status of student—be it established CEOs, conference attendees or government officials. The statistician has maintained a

great distance from the federal government during the last few decades, with the speculation being that Deming resents being overlooked by the U.S. government for most of his 90 years. He even went so far as to shun a chance to help co-write the legislative regulations for the Malcolm Baldrige National Quality Awards with fellow quality expert Dr. Joseph Juran, said congressional sources.

According to Deming, the United States needs to conduct reform in a variety of areas to achieve the level of quality attained in Japan. Significant education initiatives should be undertaken, starting with the elimination of grades. Legislation should be drafted to encourage corporate collaboration. Moreover, corporations should eliminate all forms of ranking in order to encourage teamwork.

"We need a whole new ballgame," Deming said. "Stop ranking people. Abolish the merit system, which means abolish grading in school, abolish ranking people, abolish incentive pay. Reward systems have to be turned around."

The only way for industry executives to learn how to implement effective quality programs, he said, is to take his four-day, roughly \$900 seminar at least two or three times, "if they give a hoot. I don't know of any other way to improve, transform. If I could do it in less time than that, I'd be doing it."

The seeds for the quality revolution needed to be planted first in America's schools. "People can't even write. They can't even hold a pen. They hold a pen like chopsticks, wiggle their fingers to write," Deming said. "People write [me] notes and have misspelled words—can you imagine?"

"Grading is not for us. [American students] never had a chance to learn. Everybody's born with a desire to learn. 'What's this? What's that?' We crush out of them any desire to learn, any self esteem or dignity."

"On a Friday before Christmas, 110,000 children in Baltimore took home with them a circular printed by the teachers' association directed to the parents not to beat their children for low grades," he continued. "The child is humiliated here. In Japan, a child is never humiliated, either in school or at home. Nobody is humiliated. Everybody's a jewel."

"You see, we don't use our heads. I've been as guilty as anybody, remember that. If you play a game, play tennis for example, we know that before we start, somebody will win. We carry that over into the schools. Only so many A's, so many B's. On the job—only one permitted at the top. It introduces competition."

—Lucy Reilly

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THE WHITE HOUSE

WASHINGTON

April 18, 1991

Dear Mr. Davis:

Thank you for your letter of April 8, 1991, inviting me to speak at your Annual Meeting scheduled to be held in Syracuse in June.

However, the number of requests I have received for the month of June is overwhelming, so as much as I would like to join you, I must regretfully decline.

I appreciate your thinking of me and wish you a successful meeting.

Sincerely yours,

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

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

Mr. Irwin L. Davis
President
University Hill Corporation
736 Irving Avenue
Crouse Unit, East Wing, Room 252
Syracuse, New York 13210

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION-SPEECH

DOCUMENT NUMBER: 9121084

SPEECH: YES NO

FROM: DAVIS, Irwin L.: UNIVERSITY HILL CORPORATION

DATE OF EVENT:

LOCATION OF EVENT: SYRACUSE, NEW YORK

TIME OF EVENT:

SUBJECT: REQUEST TO SPEAK AT THEIR ANNUAL MEETING (to be
scheduled at your convenience in June).

RSVP: 04/26/91

CONTACT PERSON: DAVID MANKIEWICZ

CONTACT NUMBER: 315/475-7244

INVITATION ACCEPTED? ☒ YES ☐ NO

COPIES TO: Dr. Phillips

REMARKS:

DATE OF LETTER: 04/08/91

DATE RECEIVED: 04/12/91

FILE: INVITATION-SPEECH

University
Hill
Corporation

RECEIVED

James W. Maher, Chairman

Irwin L. Davis, President

David A. Mankiewicz, Executive Vice President

31 APR 12 49:48

CHIEF OF STAFF
DIRECTOR

April 8, 1991

Dr. Allan Bromley,
President's Science Advisor
Old Executive Office Building
Room 358
Washington, D.C. 20500

Dear Dr. Bromley:

The University Hill Corporation is a private, not for profit organization which seeks to encourage the growth and development of the University Hill area in Syracuse. The Corporation was created in 1963 and has among its members the major educational and medical institutions, businesses, religious organizations and others who are concerned with the future of University Hill. Our major institutional members include Syracuse University, the SUNY Health Science Center at Syracuse, the SUNY College of Environmental Science and Forestry, the Veterans Administration Medical Center and Crouse Irving Memorial Hospital.

On behalf of the membership of the University Hill Corporation, I am asking you to speak at our Annual Meeting which would be scheduled at your convenience in June. Given the location of the major research institutions of the community within our area, our membership is extremely interested in the subjects of technology development and technology transfer, and using the scientific expertise of the institutions to stimulate economic development.

We are now undertaking a cooperative effort with Cornell University, Syracuse University, and the business leadership of the Central New York area represented by the Metropolitan Development Association to create the "supercomputing corridor" between Cornell and Syracuse. This program seeks to take advantage of Cornell's supercomputing center (funded by NSF) and the parallel processing expertise at Syracuse (funded by DAPPA)

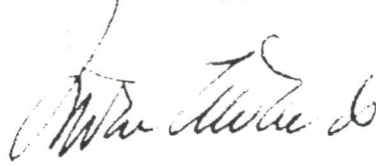
to make Central New York one of the centers of the next generation of computer development.

I would appreciate it if you could let us know if you could attend our meeting as our guest. We will have approximately 200 guests including the public and private leadership of Central New York, and the luncheon will be held at Syracuse University.

If you or your staff have any questions, please feel free to contact David Mankiewicz or me at (315) 475-7244.

Thank you for your consideration.

Sincerely,

A handwritten signature in dark ink, appearing to read "Irwin L. Davis", written in a cursive style.

Irwin L. Davis
President

cc: Hon. James Walsh
Hon. Alfonse D'Amato
H. Douglas Barclay

THE WHITE HOUSE

WASHINGTON

June 4, 1991

Dear Mr. Minister:

Thank you for your letter of May 8, 1991, inviting me to join you in Halifax for the Marconi Award activities scheduled for June 18-21, 1991. I apologize for the much belated response.

Unfortunately, as much as I would like to join you and your colleagues on this special occasion, I find that my schedule is heavily committed during that period, so I must regretfully decline your invitation.

I appreciate your thinking of me and offer my best wishes for a most successful event.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D." being small and the last name "Bromley" being larger and more prominent.

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

The Honorable Terence R.B. Donahoe
Minister
Department of Tourism and Culture
P.O. Box 456
Halifax, Nova Scotia
B3J 2R5

"INVITATION FOR DR. BROMLEY"

TYPE: INVITATION

DOCUMENT NUMBER: 9121478

SPEECH: YES NO

FROM: DONAHOE, Terence: DEPARTMENT OF TOURISM & CULTURE,
NOVA SCOTIA

DATE OF EVENT: 06/20/91

LOCATION OF EVENT: HALIFAX SHERATON HOTEL, NOVA SCOTIA

TIME OF EVENT: 03:30PM

SUBJECT: INVITATION TO THE 17TH ANNUAL MARCONI INTERNATIONAL
FELLOWSHIP AWARD IN HALIFAX, NOVA SCOTIA, CANADA.
(THERE IS A FOUR DAY ITINERARY 06/18-21.)

RSVP: 06/04/91

CONTACT PERSON:

CONTACT NUMBER:

INVITATION ACCEPTED?

YES

NO

COPIES TO:

REMARKS: A formal invitation will follow.

DATE OF LETTER: 05/08/91

DATE RECEIVED: 05/21/91

FILE: INVITATION



Nova Scotia

**Department of
Tourism and Culture**

Office of the Minister

RECEIVED

MAY 21 11:12

PO Box 456
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Our file no:

OFFICIAL
DIRECTOR

May 8, 1991

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Room 360, Old Executive Office Building, NW
Washington, DC 20560
USA

Dear Dr. Bromley:

The Province of Nova Scotia is proud to be hosting the 17th annual Marconi International Fellowship Award in Halifax, Nova Scotia, Canada, from June 18-21, 1991. The Award honours significant advances in communications science or technology and this year's recipient is American Paul Baran, generally credited as the "father of packet switching." The Young Scientist Award Selection Committee is now in the process of naming a Canadian recipient.

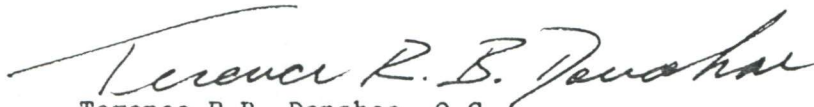
His Excellency, the Right Honourable Ramon J. Hnatyshyn, the Governor General of Canada, will present the Award in Halifax at the residence of the Lieutenant Governor of the Province of Nova Scotia. This will be followed by a black tie dinner at the Halifax Sheraton Hotel. Gioia Marconi Braga and her party will visit Nova Scotia from June 18 to 21, and we invite you to join them in Halifax during that time for the ceremonies and program.

Included in the four-day itinerary will be a day tour of historic Halifax, including a cruise on the second largest natural harbour in the world, visits with members of our scientific community, and a one-day excursion to the 300-year-old town of Lunenburg, famous for its seafood and shipbuilding. The Award ceremony will take place on Thursday, June 20, at 3:30 p.m.

.../2

I am writing to you in advance of the formal invitation to personally invite you and your guest to join us in Halifax for the Marconi Award presentations. Nova Scotia is a beautiful place to visit in June, and within easy travelling distance of many points in the United States and Canada. There are direct flights from London, Amsterdam, New York, Boston and most major Canadian cities. We are delighted that Nova Scotia has been selected to host this significant event, in honour of Marconi's scientific achievements made in our province at the turn of the century. I hope you will reserve this date on your calendar. Your presence here will be warmly welcomed.

Yours very truly,

A handwritten signature in cursive script, reading "Terence R.B. Donahoe". The signature is written in dark ink and is positioned above the printed name and title.

Terence R.B. Donahoe, Q.C.
Minister

THE WHITE HOUSE
WASHINGTON

July 31, 1991

Dear Jay:

I too am very sorry that we missed making contact on your last trip through, but my schedule has been a very hectic one. I have not, however, given up and I hope that this also applied to you. It is in the nature of statistics that one of these days our paths will actually cross here in Washington.

I was delighted to learn that the AMS activity is going well and your leadership is clearly what has made the difference in this entire area. You were entirely correct in that this is a field that can enliven a number of the California campuses. I will have an opportunity to talk to David Galas in the near future because I have convinced him to chair the government-wide examination of where we are and where we are going in biotechnology and see him quite frequently.

The microbeam area seems to me a very important and widely applicable one as well and I have a feeling that its use is just beginning to be appreciated.

I am sorry that interaction last time was so brief, but I was on my way to the Oval Office and nothing, but nothing, stands in the way of those particular sorties.

With all best wishes,

Sincerely yours,



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

Dr. Jay C. Davis
Director
Center for Accelerator Mass Spectrometry
Lawrence Livermore National Laboratory
Post Office Box 808
Livermore, California 94550

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9122648
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: DAVIS, Jay C.: LAWRENCE LIVERMORE NATIONAL LABORATORY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/17/91

SUBJECT: RE: AMS ACTIVITY AND MENTION OF THE POSSIBILITY OF
GIVING OSTP A SUMMARY BRIEFING ON THE IRAQI PROBLEM
WHEN HE RETURNS IN MID-AUGUST.

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
LIFE SCIENCES
Marian Nida

WHITE HOUSE TRACKING #: CONTACT PERSON:
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REMARKS:

OSTP RECEIVED: 07/23/91 FILE: DAB-PERSONAL*LIFE SCIENCES
DEPT RECEIVED:



Lawrence Livermore National Laboratory

RECEIVED

July 17, 1991

91 JUL 23 P 2:45

OFFICE OF THE
DIRECTOR

Professor D. Allan Bromley
Executive Office of the President
Old Executive Office Building, R-360
17th and Pennsylvania Avenue, NW
Washington, DC 20506

Dear Allan:

I'm sorry to have missed connections with you yet again. It might be better use of Marian's time to just instruct her to hang up when she hears my voice. Rarely has an individual worked so diligently and been able to achieve so little for her efforts.

I'd wanted to drop by to fill you in on a couple of things. The AMS activity goes very well. Our UC Steering Committee has given the work a ringing endorsement, calling it the "most valuable example to date of laboratory-campus collaboration." Our internal research has gone well. The biomedical portion has been given a five-year NIH/NCI grant for carcinogen/mutagen work, we expect DOE funding for a collaborative research project with Caterpillar to investigate the origin of particulates in combustion in diesel engines, and we are developing and testing new technology for bulk sample preparation and tritium AMS for clinical work. Funding for geochemistry and paleoclimatology work seem to be the hardest to develop. However, David Galas at OHER is receptive to taking ownership of us as both biomedical and climate-related research programs fall within his purview. Hans Mark is making strong statements to Secretary Watkins about the quality of our work; we hope for a trickle-down effect eventually.

I've broadened our program with a major push in the microbeam area as well. With our Sandia collaborators, we are stressing intelligence and structural biology uses of this tool. Internally, we appear to have the best method for the precision characterization of ICF targets. Proton energy loss tomography sure beats radiography any time. If you toss in PIXIE and neutron time-of-flight to measure D and T distributions, their problems are pretty well wrapped up.

July 17, 1991

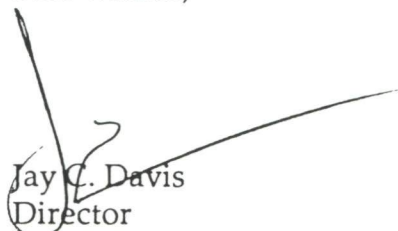
Page 2

I've also been leading the Laboratory's effort to respond to Hans Mark's tasking on new sample acquisition and analytical tools for a quick response nuclear forensics program. Present technology can return samples in 72 hours at best and take days to provide further answers such as isotopic signatures. Having stood on the ground at Tuwaitha taking samples that could have been acquired with RPV or even pod-mounted systems during the combat, I've got some typically strong opinions on how to proceed.

Off to Vienna Monday night to start another stint of nuclear archaeology in Iraq. There was fear and trembling at LLNL when they found out that I would address the Security Council. My old viewgraph offering Massachusetts as a Palestinian homeland still sticks in people's minds for some reason. Will be glad to give your office a summary briefing on the Iraqi program when I get back in mid-August. These people were doing a first rate job. I've made a strong request to be part of the debriefing team for the project leadership if they ever come out.

Keep holding the fort and doing good work. Seeing you stalk down the corridor like a lion last week told me that you were bearing up under what must be becoming an ever more difficult job.

Best wishes,


Jay C. Davis
Director
Center for Accelerator
Mass Spectrometry

JCD:nms

THE WHITE HOUSE
WASHINGTON

July 31, 1991

Dear Pierre:

Many thanks for your letter of July 2nd about Project Gemini. I was already aware of some of the problems that had arisen with respect to the Canadian contribution because I have been in close contact with the Canadian Cabinet concerning funding of this and other major projects, specifically including the KAON Factory under consideration for the University of British Columbia.

At the invitation of the Speaker of the Canadian House, I travelled to Ottawa a few months ago and met with a large fraction of the Cabinet to discuss these matters in general. I found that, while Bill Winegard, the Minister of Science and Technology, is strongly opposed to investment in the larger projects because he feels that he desperately needs more funding for the support of small science and individual investigators, there is a feeling on the part of many of the other ministers that Canada simply cannot pass by the opportunities that Project Gemini and the KAON Project, to take only two examples, present without falling into a complete scientific backwater. Unfortunately, this has resulted in something of a stalemate so that no decisions are being made and in the absence of decisions, there is the time-honored fact that a lack of decision usually is equivalent, for all practical purposes, to a negative decision.

Now that you have reminded me about the Gemini Project, I will take the occasion to bring it up again with some of the senior people in Ottawa and with the Canadian Ambassador here in Washington, who happens to be an old colleague from Queen's University a great many years ago.

Given the stalemate to which I have already referred, it is not at all obvious that we can look for any immediate, positive results, but I shall certainly maintain my efforts to convince the Canadian Government that instead of Bill Winegard's complaint that they simply cannot afford to fund these projects, the true fact is that they cannot afford not to fund these projects. I think the latter sentiment is gaining some increasing support and I will keep working on it.

It was good to hear from you and I hope that all goes well. Some time I would like to know what your personal reaction was to the priority listing in the Bahcall Report.

With warmest best wishes,

Sincerely yours,

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

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

Professor Pierre Demarque
Department of Astronomy
Yale University
204 Josiah Willard Gibbs Laboratory
Post Office Box 6666
260 Whitney Avenue
New Haven, Connecticut 06511

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION DOCUMENT NUMBER: 9122001
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: DEMARQUE, Pierre: YALE UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/02/91

SUBJECT: INFORMATION ON PROJECT GEMINI, THE TWIN 8-METER
OPTICAL-INFRARED TELESCOPE PROJECT IN COLLABORATION
WITH CANADA AND THE U.K.

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
PHYSICAL SCIENCES
INTERNATIONAL/POLICY

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

OSTP RECEIVED: 07/08/91
DEPT RECEIVED:

FILE: PHYSICAL SCIENCES

Yale University

Center for Solar and Space Research
RECEIVED
P.O. Box 6666
New Haven, Connecticut 06511

2001
Campus address:
204 Josiah Willard Gibbs
260 Whitney Avenue
Telephone:
203 432-3000
203 432-3024

91 JUL 8 P 4: 12

OFFICE OF July 2, 1991
DIRECTOR

Dr. D. Allan Bromley
Executive Office of the President
Office of Science & Technology Policy
Old Executive Office Building
Room 360
Washington, D.C. 20506

Dear Allan:

I am writing to you about Project Gemini, the twin 8-meter optical-infrared telescope project in collaboration with Canada and the U.K. The plan is to build one 8-meter telescope in each Hemisphere (in Hawaii in the North and in Chile in the South). The U.S. are the senior partner, with a half share in the project, and Canada and the U.K. are to have one quarter share each.

The project has so far had NSF support. The construction of ground-based 8-meter national telescopes is a high-priority item in the Bahcall Report. The British have also received official approval. The problem is that Canada, lacking government financial support, has withdrawn, thus endangering the whole project.

As a member of the AURA Board of Directors, the organization that operates the National Optical Astronomical Observatories, and as an active researcher, I wish to express my concern about the devastating consequences for the future of astronomical research in the U.S. if Project Gemini does not go through. Our European colleagues of ESO have already begun to work on the VLT (Very Large Telescope) which consists of an array of 8-meter optical dishes. In particular, not having access to an 8-meter class instrument in the Southern Hemisphere would mean that some of the most promising areas of frontier astrophysics would be closed to U.S. researchers.

Best regards,

Sincerely,



Pierre Demarque
Munson Professor

cc: Dr. Goetz Oertel, President, AURA, Inc.

THE WHITE HOUSE
WASHINGTON

September 18, 1991

Dear Mr. Detrich:

Many thanks for sending me a copy of your book entitled **In the Shadow of the Rising Sun**. I have at this point only had an opportunity to glance through it but it is obvious that it contains a wealth of information that will be of use to me and to my staff.

I would congratulate you on the obvious work that has gone into assembling this powerful document.

With warmest best wishes,

Sincerely yours,

A handwritten signature in dark ink, reading "D. Allan Bromley". The signature is written in a cursive, flowing style with a horizontal line extending from the end.

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

Mr. W. S. Detrich
500 Grant Street
Pittsburgh, Pennsylvania 15219

THE WHITE HOUSE

WASHINGTON

September 20, 1991

Dear Jay:

Many thanks for your letter of August 16 which arrived just as I was beginning my vacation in Canada. That, followed by some extensive travelling since, is responsible for the appalling delay in responding to your note with its remarkable set of photographs.

I am sorry that our last interaction was so fleeting, but I had just received word from the Oval Office that the President wanted me as soon as possible. Those are demands that it is difficult to do other than respond to with all speed. One of these days, however, we will find a time when we can sit down and talk about some of the interesting things that you have been up to. I must say that your photographs very clearly demonstrate that without aggressive leadership on the part of the people involved in the teams investigating the Iraqi activities, we will end up knowing vastly less than we need. I am encouraged by what you tell me about the situation involving nuclear activities but much less sanguine about the state of our knowledge of either chemical or bacteriological weaponry and work.

Please do let me know when you plan to be in Washington again and I will make a manful effort to clear space on the calendar.

With warmest regards,

Sincerely yours,



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

Dr. J. C. Davis
Director
Center for Accelerator Mass Spectrometry
Lawrence Livermore National Laboratory
Post Office Box 808
Livermore, California 94550

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9123543

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: DAVIS, Jay C.: LAWRENCE LIVERMORE NATIONAL LABORATORY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 08/16/91

SUBJECT: PICTURES FROM HIS LAST STINT AT NUCLEAR ARCHAEOLOGY
IN IRAQ AND A THANK YOU FOR YOUR LETTER OF
ENCOURAGEMENT.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED:

ACTION
REQUIRED:

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 08/21/91
DEPT RECEIVED:

FILE: P-DAB-PERSONAL



Lawrence Livermore National Laboratory

RECEIVED

91 AUG 21 A 9: 51

August 16, 1991

OFFICE OF THE
DIRECTOR

Dr. Allan Bromley
Presidential Science Advisor
Executive Office of the President
Office of Science & Tech. Policy
Old Executive Office Bldg, R-360
17th & Pennsylvania Avenue, NW
Washington, DC 20506

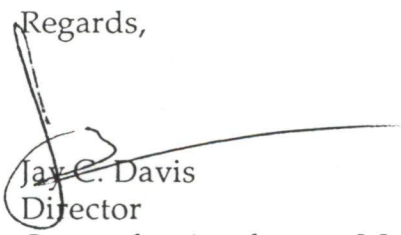
Dear Allen:

Marian and I have had our usual pleasant conversation about the incompatibility of your and my schedules. In pledge of telling you the whole story eventually, I'm sending along several pictures from my last stint at nuclear archaeology in Iraq. We were rather more successful on the fourth inspection, returning with all the paperwork from the EMIS project plus a detailed understanding of how well their hardware was actually working. Have no doubts, these people can be the Japanese of the Middle East if they choose to.

Don't know when I'll next get to Washington. DOE/OAC has a close-out conference on Resolution 687 at LANL 28-30 August. I'll probably show up sometime thereafter.

Thanks for the nice letter of encouragement as well. One very pleasing aspect of having lost the whole summer is the discovery by my own crew that they don't need me around. I knew that, but they've learned the lesson. All the samples have been run and the machine works fine. All that remains is stable funding.

Regards,


Jay E. Davis
Director

Center for Accelerator Mass
Spectrometry

JCD:nms

THE WHITE HOUSE
WASHINGTON

September 19, 1991

Dear Jerry:

Many thanks for the two volumes of proceedings from the **Eleventh International Conference on the Application of Accelerators**. I was delighted and touched by the dedication and would take this occasion to congratulate you on the excellence of this series of conferences. You have made a major contribution to alerting the entire scientific community to the tremendous flexibility and adaptability of small accelerators in fields far removed from the nuclear physics for which they were first developed.

I would very much look forward to the possibility of attending the 1992 conference but, as you recognize, the fall of 1992 will be more than a little hectic here in Washington. All I can say at this time is that I will try.

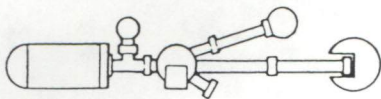
Again, my thanks and warmest best wishes,

Sincerely yours,



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

Professor Jerome L. Duggan
International Conference on the Application of
Accelerators in Research and Industry
Department of Physics
University of North Texas
Post Office Box 5368
Denton, Texas 76203



**International
Conference on the Application of
Accelerators in Research and Industry**
Department of Physics
University of North Texas
P.O. Box 5368
Denton, Texas 76203-5368

August 7, 1991

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

Re: Eleventh International Conference on the
Application of Accelerators in Research and Industry
November 5-8, 1990, Denton, Texas

Dear Allan:

Enclosed please find the Eleventh International Conference on the Application of Accelerators Proceedings. The committee felt that your contributions to low energy nuclear physics have been unparalleled in the past and probably in the foreseeable future. I hope that you will be able to attend our conference in November of 1992. I realize that you are busy, but please try to break away if you can. Thank you for all that you have done for accelerator physics.

Sincerely yours,

Jerome L. Duggan
Co-Chairman

JLD/bs

Overnight Delivery Address:

Physics Building • Avenue A & Mulberry • Denton, TX 76203
Ph: 817-565-3252 or 817-565-3250 • FAX: 817-565-2227 • BITNET: FC66@UNTVAX.BITNET

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9123503

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: DUGGAN, Jerome L.: INTERNATIONAL CONFERENCE ON THE APPLICATION
OF ACCELERATORS IN RESEARCH & INDUSTRY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 08/07/91

SUBJECT: RE: THE ELEVENTH INTERNATIONAL CONFERENCE ON THE
APPLICATION OF ACCELERATORS PROCEEDINGS (Part I and
II) AND HOPE THAT YOU WILL ATTEND THE CONFERENCE IN
NOVEMBER OF 1992.

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
PHYSICAL SCIENCES

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

OSTP RECEIVED: 08/16/91
DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES

THE WHITE HOUSE
WASHINGTON

December 4, 1991

Dear Larry:

First of all, warmest congratulations on your becoming President of the University of New Haven. As the proud holder of a doctorate (honoris causa) from that University, I consider myself a member of the family and am delighted that you have been willing to take on the responsibility for what I believe to be a first-class university with a very real potential for growth and for greater service to the Connecticut community.

I have tried to return your telephone call on several occasions and have gotten through to your office but unfortunately our schedules have not overlapped.

Unfortunately my chief counsel tells me that in my present position it would be inappropriate for me to provide the kind of endorsement letter that you mention in your letter of October 23 for use in your approach to potential corporate donors.

Despite that, I must say that I am in full agreement with your decision to select environmental science and environmental engineering programs as those having major growth potential.

Some time ago I had a long discussion with Phil Kaplan, your predecessor, concerning the future of UNH and, at that time, emphasized to him what I considered to be the great potential in continuing education. You already have a very distinguished reputation for making available to the Connecticut community first-class programs, scheduled in such fashion that they can be taken by those having full-time employment. Given the fact that formal education in almost all fields has a half-life that is decreasing very rapidly, it seems to me that continuing education is one of the necessary growth areas for all areas of the country, and particularly for areas like that around New Haven. Building on the very real strength that you already have, I feel certain that you can continue to play a vitally important role not only in serving the enterprises in the New Haven area, but also in attracting new ones to that area where, in my opinion, they are badly needed.

I am sorry that I am not in a position to provide you with the requested letter at this time but would be happy to assist in any other way that is possible for me.

Again, congratulations on my your new appointment and with all best wishes for every success in it.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'D. Allan Bromley', with a stylized, flowing script.

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

Dr. Lawrence J. DeNardis
President
University of New Haven
West Haven, Connecticut 06516

UNIVERSITY OF NEW HAVEN

WEST HAVEN, CONNECTICUT 06516

LAWRENCE J. DENARDIS

PRESIDENT

October 23, 1991

Dr. D. Allan Bromley
Presidential Science Adviser
6716 Tulip Hill Terrace
Bethesda, MD 20816

Dear Dr. ^{allan}Bromley:

My recent appointment as President of the University of New Haven presents both an opportunity and a challenge. Like you in your position, I am eager to meet the demands of my role and set the course for UNH as we sail into the 21st century.

After two months of meetings and conversations with faculty, staff and students regarding our campus, one particular opportunity stands above the rest in terms of growth potential - our ENVIRONMENTAL SCIENCE and ENVIRONMENTAL ENGINEERING programs. I am writing to ask for support in the form of an endorsement letter from you that we can enclose along with our proposal to potential corporate donors.

UNH is one of a select group of universities in New England that offer accredited BS and MS programs in both fields. Enrollment in our environmental programs has doubled in the past five years, with record enrollment this fall of some 300 students. Reputable faculty and an ability to develop strong relationships with federal, state and private organizations is the basis of our strength. Our faculty and students currently have research agreements with a number of organizations including United Technologies Hamilton Standard Division and the Connecticut DEP to study various environmental hazards and possible solutions.

We are proud of our accomplishments and are now faced with the challenge of upgrading environmental labs to maintain an edge in the field. We have raised nearly \$400,000 so far in grants and gifts in kind. However, an additional \$540,000 is needed to complete our multi-phase plan which also includes endowed student and faculty fellowships.

Dr. D. Allan Bromley

- 2 -

October 23, 1991

I have chosen you especially for this request because of your strong role in environmental legislation and my belief that your words of confidence will in turn motivate those in "industry" to help us meet our objectives.

The primary focus of our programs are hands-on training to deal with real-life problems. We are not new to environmental education and our concern is the ability to service an existing and rapidly growing need. By supporting UNH, industry can have an immediate and direct impact on ensuring a talented workforce, trained by leaders in the field who utilize the latest technology.

Enclosed is a summary of our environmental science proposal. Your consideration of my request is most appreciated.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Lawrence J. DeNardis', written in a cursive style.

Lawrence J. DeNardis
President

Enclosure

THE WHITE HOUSE
WASHINGTON

November 29, 1991

Dear John:

My apologies for the long delay in responding to your letter in which you tell me of your fellowship at the Kennedy School and your desire to discuss some of the science policy questions having to do in particular with large projects. This, of course, is a matter of substantial continuing interest to my office and I would look forward to the possibility of the discussions you suggest.

Let me suggest that you call my scheduling secretary, Ms. Marian Nida, at 202/456-7116 so that we can find some mutually convenient times.

I look forward to seeing you and to the proposed discussions. In the meantime, let me simply wish you every success and satisfaction in your fellowship at Harvard.

Janet Halliwell stopped by to see me a few months ago and we had a very interesting discussion about science policy matters. I, of course, have been very much interested in the KAON project and have been keeping in relatively close touch with its development, both at the Federal and Provincial levels.

I look forward to hearing from you.

Sincerely yours,



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

Dr. John de la Mothe
Research Fellow
John F. Kennedy School of Government
Harvard University
79 John F. Kennedy Street
Cambridge, Massachusetts 02138

4123

HARVARD UNIVERSITY

CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS

RECEIVED

91 SEP 20 P 2: 54

OFFICE OF THE
DIRECTOR

*John F. Kennedy School of Government
79 John F. Kennedy Street
Cambridge, Massachusetts 02138
Phone (617) 495-1400
Fax (617) 495-8963*

Dr. D.A. Bromley
Chief Scientific Advisor
The White House
Pennsylvania Avenue
Washington, D.C.
USA

September 13, 1991

Dear Allan,

It has been far too long since we last chatted at the HEPAP meetings in Chicago, and far too long since I've been able to concentrate on "big science", but hopefully this note will mark the end of both neglects.

I am now at the Kennedy School working on problems relating to public policy evaluations and decision making processes viz competing big science projects. For example, ~~who~~ does a country like Canada decide between a KAON project, SNO (Sudbury Neutrino Observatory), being active in the SSC or CERN, and so on. Such questions will require a return to first principles. For example, what is big science? Is it the same as monumentalism, meta-science, mega-technology, etc.? What processes do the scientific and policy communities have to go through in order to get a particular project on the political agenda? And on and on.

I hope that you find this kind of questioning interesting and important, as I would very much like to arrange to visit with you - perhaps thrice - over the next six or seven months. November right now is looking clear for a first meeting, as I'll be beginning cite visits in Europe and Canada in the next few weeks. Would this proposal be acceptable to you?

I look forward to hearing from you in the near future, and hope that you are well. It will be nice to see you again.

Best Regards


John de la Mothe, Ph.D.
Research Fellow

P.S. Janet Halliwell at the Science Council of Canada sends her best as well.

"CORRESPONDENCE TRACKING"

TYPE: MEETING REQUEST DOCUMENT NUMBER: 9124123
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: de la MOTHE, John: HARVARD UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/13/91

SUBJECT: REQUEST FOR A HEPAP MEETING POSSIBLY IN NOVEMBER.

DIRECTORATE STAFF
ASSIGNED: D. Allan Bromley ASSIGNED:

ACTION STAFF
REQUIRED: AS NECESSARY ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 10/04/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO:

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

OSTP RECEIVED: 09/20/91 FILE: P-DAB-PERSONAL
DEPT RECEIVED:

THE WHITE HOUSE

WASHINGTON

December 4, 1991

Dear Larry:

Thank you for your letter regarding representation of the Department of State on the Federal Coordinating Council for Science, Engineering, and Technology. I would like to ask you to reconsider your position and hope that I can convince you that you, yourself, are the appropriate representative from State.

When I first arrived here, I took as a project that of understanding why the Federal Coordinating Council had been so ineffective in years past since its establishment in 1976. The answer became clear very quickly. The representation on the Council was at too low a level so that the decisions reached in it could be disowned by more senior personnel whenever budget crunches developed.

The solution was then obvious. With strong support from the President, I was able to restructure the Council so that we now have as its members either the Secretaries or Deputy Secretaries of all the agencies having any significant science and technology content in their activities, together with the directors of the independent agencies including NSF, NASA, and EPA.

The Council itself meets, at most, quarterly for, at most, an hour and a half, and I have made a commitment to the members that we will not meet unless there is a substantial agenda requiring active discussion and decisions. I have an adequate staff so that the preparations for these meetings are at the same level of detail as are those for the other senior Cabinet councils.

It is the President's wish that this council operate at a level consist with the other executive councils and, for that reason, I would very much hope that you would reconsider your decision and that you, yourself, would agree to serve as the Department of State's representative on the Council. Your colleague, Under Secretary Reggie Bartholomew, serves as Chairman of the Committee on International Science and Technology, and has done so with real distinction during this past year when the Ciset Committee came up with a number of very important studies and reports. Currently the Council committees are completing work on the five major crosscut activities that have been in progress during this past year. These include global change, high performance computing and communication, mathematics and science education, materials science and technology, and biotechnology.

At the next meeting of the Council one of the major items for discussion will be the transfer of mature crosscuts that have enjoyed the status of Presidential Initiatives in the budget submissions for several years into a less active and less visible status that we have tentatively titled National Research Programs.

This next meeting will be held in the Roosevelt Room of the White House on December 11, 1991 at 2:00 pm and I very much hope that you will decide to join us.

With all best wishes,

Sincerely yours,



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

The Honorable Lawrence S. Eagleburger
Deputy Secretary
Department of State
2201 C Street, Northwest
Room 7220
Washington, D.C. 20520

THE DEPUTY SECRETARY OF STATE
WASHINGTON

September 5, 1991

Allan -
Dear Dr. Bromley:

After considering the responsibilities of the Federal Coordinating Council for Science, Engineering, and Technology, I have determined that the appropriate State Department representative on the Council should be Reginald Bartholomew, Under Secretary for International Security Affairs. Please contact his office directly regarding participation in upcoming meetings or any other matters.

Sincerely,

Lawrence S. Eagleburger
Lawrence S. Eagleburger

The Honorable
D. Allan Bromley,
Assistant to the President for Science
& Technology,
The White House.

THE WHITE HOUSE
WASHINGTON

September 18, 1991

Dear Leonard:

Many thanks for sending me a copy of your recently published book **Traffic Safety and the Driver**. I have only had an opportunity to glance through it as yet but obviously it contains a vast amount of information that will be of use to me and to my staff. I congratulate you for the obvious work that was involved in pulling all this together.

And let me finally say that I am more than delighted to congratulate you on the fulfillment of your longfelt dream--one that I, of course, can resonate to--of sleeping with a cover girl!

With warmest best wishes,

Sincerely yours,



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

Dr. Leonard Evans
Operating Sciences Department
General Motors Research Laboratories
Warren, Michigan 48090

THE WHITE HOUSE
WASHINGTON

July 22, 1991

Dear Mr. Evans:

Thank you for your letter of July 1 commenting on the legislation on manufacturing technology encompassed in S.1330 and S.1328.

We share your appreciation for the role of manufacturing in the arena of international economic competitiveness. We have met with representatives of the National Coalition for Advanced Manufacturing and are aware of their paper on industrial modernization. The legislation to which you refer is under study by appropriate agencies of government. The Administration's position on the legislation remains to be developed.

Again, I deeply appreciate your input.

Sincerely,

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

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

R.S. Evans
Chairman and Chief
Executive Officer
Crane Co.
757 Third Avenue
New York, NY 10017

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9122170

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: EVANS, R.S.: CRANE COMPANY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/15/91

SUBJECT: RE: THE DECLINE IN AMERICA'S LEADERSHIP POSITION IN
MANUFACTURING AND THE HOLLINGS (S. 1330) & BINGAMAN
(S. 1328) BILLS.

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
INDUSTRIAL
Carl Bretscher

WHITE HOUSE TRACKING #:

CONTACT PERSON:

PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 07/15/91
DEPT RECEIVED:

FILE: P-INDUSTRIAL

270
RECEIVED

CRANE CO. 757 THIRD AVENUE NEW YORK, N.Y. 10017

91 JUL 15 P 4:04

R. S. EVANS
CHAIRMAN AND CHIEF
EXECUTIVE OFFICER

OFFICE OF THE
July 1, 1991 DIRECTOR

The Honorable D. Allan Bromley
Presidential Advisor on Science
and Technology Policy
Room 358 Old Executive Office Bldg.
Washington, D. C. 20506

Mr. Bromley:

The steady decline in America's leadership position in manufacturing must cease. The continuing loss of market share, the dangerously low level of investment in new plant and equipment, the surge in foreign acquisitions of some of our most advanced factories, the heavy concentration of federal R&D on defense and space showcase projects, the persistent trade deficit, the erosion of the domestic supplier base, shortage of highly-skilled workers are all attacking the economic security and standard of living of the American people.

Without a resurgence of manufacturing productivity and growth, the federal government will never garner sufficient revenues needed to eliminate the budget deficit and address America's pressing financial and domestic needs. Nor will the nation have the kind of robust domestic industrial base needed for its national security requirements and its ability to conduct an independent foreign policy.

A much closer spirit of cooperation between industry, government, and academia is needed to revitalize American manufacturing. One modest,

legislation introduced by Senator Hollings (S. 1330) and Senator Bingaman (S. 1328) on advanced manufacturing technology. These bills would (a) reprioritize federal R&D spending to give much greater prominence to advanced manufacturing technologies (currently only 1.7% of the Administration's proposed \$76 billion R&D budget) and (b) provide stronger federal support for state and local industrial technology extension programs (of special benefit to the 360,000 firms with fewer than 500 employees that represent 98.5% of the total number of manufacturing establishments in the U.S.)

Since funding for these efforts would come largely out of reprogramming existing funds within the relevant agencies (Commerce, Defense, Energy, NASA, and NSF), these bills would not require significant new federal spending. They would, however, symbolize a federal commitment to join an overall national effort to modernize America's industrial base and create a new infrastructure of industry-government R & D partnerships and technical service centers.

These bills originated in the private sector, in a strategy for federal action outlined in the October 1990 White House Paper, "Industrial Modernization: An American Imperative," prepared by the National Coalition for Advanced Manufacturing (NACFAM). NACFAM is a non-partisan, industry-led, organization with broad national support. My organization fully shares NACFAM'S view that industrial competitiveness is a pressing national issue, not a partisan issue. The Hollings and Bingaman bills deserve the endorsement of both the Administration and the Congress and of both parties.

Very truly yours,



THE WHITE HOUSE
WASHINGTON

December 3, 1991

Dear Vladimir:

This is simply a note to reassure you that we are preparing the article on **U.S. Science and Technology** for inclusion in the new magazine **INTEX**, and we should be in a position to send it off to you by the end of the year. I regret that it has taken longer than I had anticipated to complete this particular manuscript.

I had the great pleasure of having dinner with academicians Laverov and Ossipyan a week ago here in Washington and I recall with pleasure our visit to the Soviet Union last summer.

I shall send you the manuscript as soon as it is available.

With warmest best wishes,

Sincerely yours,



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

Dr. V. V. Ezhov
Deputy Chairman of the USSR
State Committee for Science and Technology
11 Gorkey Street
Moscow
USSR

FACSIMILE COVER SHEET

USSR STATE COMMITTEE FOR SCIENCE AND TECHNOLOGIES

11 TVERSKAYA STREET, MOSCOW, USSR.
FAX (095)230 2360
TELEX 411241 SU
411354 SU

TO:MR.D.ALLAN BROMLEY,
SCIENCE ADVISOR TO THE PRESIDENT OF THE U.S.A.
THE WHITE HOUSE
FROM: A.N.BYKOV
DIRECTOR
GENERAL DEPARTMENT
FOR INTERNATIONAL SCIENCE
AND TECHNOLOGY COOPERATION

USSR STATE COMMITTEE FOR SCIENCE
AND TECHNOLOGIES

SEPTEMBER 23,1991.

FAX NUMBER:(202) 395-3261

NUMBER OF PAGES:FOUR, INCLUDING THE FACSIMILE COVER SHEET

DEAR DR.D.ALLAN BROMLEY

WE ARE SENDING YOU UNDER COVER OF THIS FACSIMILE COVER
SHEET A LETTER OF DR. V.V.EZHOV, DEPUTY CHAIRMAN OF THE USSR
STATE COMMITTEE FOR SCIENCE AND TECHNOLOGIES, OF SEPTEMBER 23,
1991.

BEST REGARDS,

A.A.BYKOV

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02c. Letter	To: Allan Bromley From: V.V. Ezhov Re: Unofficial translation of letter re: Joint Commission on Basic Scientific Research (2 pp.)	10/23/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence A-G [3 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-003
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

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

P-1 National Security Classified Information [(a)(1) of the PRA]
P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P-3 Release would violate a Federal statute [(a)(3) of the PRA]
P-4 Release would disclose trade secrets or confidential commercial or
financial information [(a)(4) of the PRA]
P-5 Release would disclose confidential advice between the President
and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of
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(b)(1) National security classified information [(b)(1) of the FOIA]
(b)(2) Release would disclose internal personnel rules and practices of an
agency [(b)(2) of the FOIA]
(b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
(b)(4) Release would disclose trade secrets or confidential or financial
information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of
personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement
purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of
financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02d. Letter	To: Allan Bromley From: V.V. Ezhov Re: Joint Commission on Basic Scientific Research [in Russian] (3 pp.)	10/23/91	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Correspondence Files
WHORM Cat.:
File Location: D. Allan Bromley Correspondence A-G [3 of 4] [1991]

Date Closed:	2/1/2010	OA/ID Number:	62000-003
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

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 (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
 (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
 (b)(9) Release would disclose geological or geophysical information

THE WHITE HOUSE

WASHINGTON

November 30, 1990

Dear Tom:

I am very sorry to have to tell you that, even though I initially accepted your kind invitation to speak at the National Conference on Undergraduate Research scheduled to be held at CalTech on March 21-23, 1991. As much as I would have liked to join you, I must cancel my visit as a result of very recent Presidential scheduling that requires me to remain in Washington on the dates in question.

I had looked forward to seeing you and Stephanie again with great pleasure, but perhaps we will be able to get together soon. I hope that the Conference goes well for you.

Sincerely yours,



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

Professor Thomas A. Tombrello
Physics Department 200-36
California Institute of Technology
Pasadena, California 91125

March 2/23

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9022685

FROM: ASHKENAS, HARRY: EUREKA

TO: BROMLEY

DATE OF
CORRESPONDENCE: 07/03/90

SUBJECT: CONFIRMING PARTICIPATION IN 5TH ANNUAL CONFERENCE

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: 07/12/90

FILE: NEOB



EXCELLENCE IN UNDERGRADUATE RESEARCH:
EXPERIENCE, KNOWLEDGE AND ACHIEVEMENT

21 August 1990

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Union College

Dr. Marilyn Williams
Cornell University

**Ms. Marian Nida
Executive Office of the President
Washington, D.C. 20506
RE: Dr. D. Allan Bromley
Assistant to the President
for Science and Technology**

Dear Marian:

Attached you will find the biography on Dr. Bromley that will be included in the Program and Call for Papers for EUREKA, the fifth National Conference on Undergraduate Research to be held at Caltech on March 21-23, 1991 at which he will be keynote speaker. Dr. Bromley's talk has been slated for Friday, March 22 from 5:00 p.m. to 6:00 p.m. A brochure and program is also included.

We will be printing the program in early September--after, of course, Dr. Bromley returns. Please let me know if the biography is acceptable; you can leave a message at (818) 356-8471 or call me at (818) 793-5958.

Thank you,

Linda McManus

**Linda McManus
Conference Coordinator
EUREKA**

THE WHITE HOUSE

WASHINGTON

June 13, 1991

Vladimir
Dear Dr. Ezhkov,

Congratulations on another successful Basic Sciences Joint Commission Meeting. The US delegation thoroughly enjoyed their stay in the USSR and found the meetings with their Soviet colleagues and site visit hosts very productive.

I would like to thank you particularly for accompanying my colleagues and me on the visit to the Siberian Branch of the Academy of Sciences and the Space Center at Baikonur. I know you worked very hard in arranging those two trips, and you certainly enhanced them by your insightful conversation and gracious hospitality.

Dr. Ratchford briefed me on your recent visit to OSTP. I was very disappointed that I was unable to see you at that time and to meet your lovely wife, Irina. However, I was glad to learn that you and she had a quite enjoyable visit to the United States. Please extend my kindest regards to her.

I understand that you and Dr. Ratchford have already begun work on preparing for the Third Joint Commission Meeting. I have high expectations for that meeting and look forward to hosting you and the Soviet delegation in the United States.

Sincerely,

Dulan

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

Dr. Vladimir V. Ezhkov
Deputy Chairman
USSR State Committee for Science
and Technology
11, Gorky Street
Moscow, 103009
USSR

*Many thanks for the
photographs! I very
much regret missing
you on your recent visit
to Washington.
DAB.*

THE WHITE HOUSE
WASHINGTON

December 18, 1991

Dear Len:

Many thanks for your letter of December 16 in which you spell out the details of the Sabatino proposal.

I quite understand that, under the circumstances and given the peer reviewing, it would be very difficult for you to support this proposal.

When I called you my concern was that the large body of data that Sabatino had collected over the years not be interrupted through some bureaucratic difficulty which I had been told was at the root of the problem. This, of course, is an entirely different matter and I much appreciate your taking the time to look into it with such care.

With all best wishes for a very merry Christmas and a happy and prosperous New Year.

Sincerely yours,



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

Dr. Lennard A. Fisk
Associate Administrator for
Space Science and Applications
National Aeronautics and Space Administration
400 Maryland Avenue, Southwest
Washington, D. C. 20546



National Aeronautics and
Space Administration

Washington, D.C.
20546

December 16, 1991

Copy to Attn of:

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

Dear Allan:

Last Tuesday, you asked me about the status of a grant to Sabatino Sofia at Yale. By the time I spoke with you later that day, I had reassured myself that the solar terrestrial theory grants and the astrophysical theory grants to Yale were being processed correctly and indicated to you accordingly that I thought everything was in order. However, I continued to research the situation and did uncover a proposal from Sabatino that does not appear will be funded.

I have taken the liberty of enclosing the confidential analysis of the peer review panel of Sabatino's proposal. As you know, we do not award any funds without a thorough, independent peer review; and we base our awards almost entirely on their ratings. As you can see, the score is only 2.7. With current limitations on funding, we normally fund proposals only if they score 3.5 or better. The programmatic assessment then was not to fund this proposal given these low marks, the high cost, and the fact that there were no prospects in the foreseeable future for a flight experiment.

I have assured myself that the review panel was both qualified and, in fact, distinguished. The panel included both solar physicists and climate experts, given the interdisciplinary nature of the proposal. The programmatic assessment was made by both the Earth Science Division and the Space Physics Division, the latter of which is responsible for solar physics.

I hope this information satisfies your concerns. I would be pleased to discuss this matter with you further.

Sincerely,

L. A. Fisk
Associate Administrator for
Space Science and Applications

Enclosure

THE WHITE HOUSE

WASHINGTON

December 4, 1991

Dear Harry:

I too was very sorry that the change in my plans here in Washington made it necessary for me to miss the lunch with you and Marion and the Frenchs, I had very much looked forward to that and hope that you will give me a rain check so that I can look forward to such a gathering on my next trip to Rochester.

If not before, I am suppose to be there on June 6 of next year to give something called the Distinguished University Lecture, but I do hope to be back before then.

It was good to see you and Marion at the environmental dinner and I must say that Liz Thorndike has done a remarkable job of pulling together what seems to be, from my vantage point, one of, if not indeed the best, independent environmental activities in the country.

I would indeed treasure the vial with 93 mg of Carbon enriched to 53.7% C 13 and remember all too well the hassle involved in liberating that carbon from the calcium carbonate in which it first appeared at Rochester. It was your suggestion of a double metastasis reaction with lead chloride that made it all possible, but there were times when I had the distinct feeling that the possibility of blowing up a small section of Bausch and Lomb was becoming distressingly high. If you simply put it in a small box and send it to me at 6716 Tulip Hill Terrace, Bethesda, Maryland 20816, I think it will do quite nicely. I will be delighted to add it to something of similar mass of Nickel 58 which constituted the first Nickel 58 target that I managed to electroplate from one-half cc of solution containing a nickel salt. We used it with the first Chalk River tandem to measure the threshold for the PN reaction on Nickel 58, which at the time, gave us the highest available energy calibration point.

Life has indeed been somewhat hectic of late in that I have been to the west coast, Florida, Japan, and Europe in the past month and one-half, and will be leaving again for Europe in two days.

I then will be going with the President to the Pacific Rim in the early part of January and to Antarctica, either immediately before or immediately after that trip. During my first year here while Pat was ill, I did essentially no travelling and so much of these obligations have been piling up and are now occupying far more of my time that I would want.

I hope that you and Marion are enjoying your emeritus status but I have the distinct impression that you probably are flunking retirement. Please give her my warmest best wishes, I look forward to seeing both of you soon and should your travels bring you anywhere near Washington, please do let me know so that I can have the pleasure of taking you to lunch at the White House Mess.

Sincerely yours,

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

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

Professor H. W. Fulbright
Department of Physics and Astronomy
College of Arts and Sciences
University of Rochester
Rochester, New York 14627

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9124949
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: FULBRIGHT, H.W.: UNIVERSITY OF ROCHESTER

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/19/91

SUBJECT: A THANK YOU LETTER REGARDING DR. BROMLEY'S VISIT TO
THE UNIVERSITY.

DIRECTORATE STAFF
ASSIGNED: ASSIGNED:

ACTION STAFF
REQUIRED: ACTION:

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

COPIES TO: D. Allan Bromley

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

DSTP RECEIVED: 11/27/91 DEPT RECEIVED:
FILE: DAB-THANK YOU
CENTRAL FILES:

UNIVERSITY OF
ROCHESTER

COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF PHYSICS AND ASTRONOMY

RECEIVED

91 NOV 27 A10:17

OSTP
MAIL ROOM

19 November 1991

Dr. D. Allan Bromley
Old Executive Office Building, Room 358
17th Street and Pennsylvania Avenue, NW
Washington, DC 20506

Dear Al:

Your talk here a couple of weeks ago seemed to please everyone. We are all grateful to you for coming, especially so since we know from newspaper and magazine articles that you are a world traveler and a very busy man.

If as originally planned you could have stayed a few hours longer I would have taken you to the nearby art museum for lunch with Marion and with Bruce and Helen French, hoping to help you relax a bit before going to the airport. Also I would have offered you a small glass tube containing a little black powder, labeled in your handwriting "93 mg Carbon 53.7% C^{13} ". $\neq$ Sorry to have missed the chance.

Keep up the good work, but take care of yourself. With best wishes,

Sincerely yours,

Harry

H. W. Fulbright
Professor Emeritus of Physics

xc: Elizabeth Thorndike

HWF/mkm

* P.S. If you'd like to have the sample from your thesis work just let me know where and how to send it.
H.

Bausch and Lomb Building
University of Rochester
Rochester, New York 14627-0171
(716) 275-4351
Telefax: (716) 275-8527

THE WHITE HOUSE

Jenny

Nov. 4, 1991

Dear John:

Rest assured that I fully understood and applauded your decision not to join The Class of '45 (a vintage class to whom I have previously had the pleasure of speaking) back up to Room 450 EOB.

We all learn quickly to adapt to changes in The President's schedule and I know that The Class enjoys its visit to The White House.

I have thoughtful of you for years; I have read much of your material over the years and enjoyed it!

Sincerely
Barack

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9124622

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: FINNEY, John W.: YALE CLASS OF 1945W

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/28/91

SUBJECT: AN APOLOGY REGARDING A SPEECH TO BE GIVEN TO HIS
CLASSMATES.

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:

OSTP RECEIVED: 10/31/91
FILE: INVITATION-SPEECH

DEPT RECEIVED:

CENTRAL FILES:



Yale Class of 1945W

RECEIVED

P.O. Box 1950 Yale Station
New Haven, Conn. 06520-1950

91 OCT 31 AIO: 13

Oct. 28, 1991

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E. Lee Schneider
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* Member of Class
Executive Committee

Dear Dr. Bromley:

OFFICE OF THE
DIRECTOR

On behalf of my class, I want to apologize to you for standing you up, after you had so kindly consented to talk to our group. Many in our class commented how sorry they were not to have heard from you because they had been told you were a man with interesting thoughts.

As you no doubt are aware, our plans were abruptly changed. We were all assembled in Room 456 awaiting a brief appearance by the President and then you and Ed Dale, when we were all summoned to the State Dining Room to meet with the President and Mrs. Bush. The President talked seriously about current issues and at greater length than we had expected and then invited us all out on to the balcony to watch his departure by helicopter.

Somehow, I have the feeling that the President did not realize that we had not yet heard from you and Ed Dale. In any event, after meeting with the president, it seemed to me it would be anti-climatic to ask my classmates to walk up four stories for further talks.

We did not intend to hurt your feelings, and I hope they were not. You were truly upstaged by the President, and few can use that as an excuse.

I just hope that another opportunity may arise for all of us to hear from you.

Sincerely yours,

John W. Finney
John W. Finney

PS I was particularly interested in hearing from you because as a reporter I covered science advisers from Killian onward. jwf *jwf*

THE WHITE HOUSE
WASHINGTON

October 4, 1991

Dear Doyle:

Thank you for your participation as an advisor to the US Delegation to the Second Joint Commission Meeting of the US-USSR Agreement on Cooperation in Basic Scientific Research, held in Moscow on May 13 and 14, 1991. Through your contributions we were able to build on the success of our First Joint Commission Meeting held the previous year in Washington. I was most gratified that we were able to sign the Memorandum of Understanding in Mapping Sciences between the Survey and the USSR Committee for Geodesy and Cartography.

The Basic Sciences Agreement between the US and the USSR holds great promise for the future. Recent events in the Soviet Union are truly remarkable, and although they may cause uncertainty in our scientific cooperation, they also present remarkable opportunities. Now, even more than ever before, we have an opportunity to move our cooperation with the Soviet Union into a new framework.

Please accept my appreciation for your support of the Basic Sciences Agreement and for your participation in the Second Joint Commission Meeting. I am pleased to include this photograph of our delegation at the US Embassy in Moscow.

Sincerely,



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

Mr. Doyle Frederick
Associate Director
United States Geological Survey
102 National Center
Reston, Virginia 22092

Enclosure

JF0'Neil:vr:10/7/91

THE WHITE HOUSE
WASHINGTON

September 20, 1991

Dear Don:

Many thanks for sending me a copy of your latest report "The U.S. Aerospace Industry in the 1990s - A Global Perspective." This, as are all your previous reports, is an excellent piece of work and I have enjoyed reading those parts of it that I have had time to focus on. I can assure you that my staff considers these documents from the AIA to be models of the kind of road map that I can only wish other private sector organizations would produce for technologies of major interest to them.

You will be interested in knowing that we have decided that it is time for us to bring together a group to update the so-called **Bird Books** on the status of the U.S. position in aeronautics. Obviously, we will want to work closely with you and your associates in this activity and some of my people will be in touch with you shortly.

With warmest best wishes,

Sincerely yours,



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

Mr. Don Fuqua
President
Aerospace Industries Association
of America, Incorporated
1250 Eye Street, N.W.
Washington, D.C. 20005

"CORRESPONDENCE TRACKING"

TYPE: I DOCUMENT NUMBER: 9123996
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: DON FUQUA, AEROSPACE INDUSTRIES ASSOCIATIONS

TC: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/10/91

SUBJECT: AEROSPACE INDUSTRIES ASSOCIATION'S REPORT, "THE U.S.
AEROSPACE INDUSTRY IN THE 1990s: A GLOBAL
PERSPECTIVE"

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
Michelle Van Cleave
Dr. Phillips
Dr. Wong

WHITE HOUSE TRACKING #: CONTACT PERSON:
REMARKS: DAB HAS THE REPORT PHONE: EXT:

OSTP RECEIVED: 09/11/91 FILE:
DEPT RECEIVED:



Aerospace
Industries
Association



Don Fuqua
President

September 10, 1991

The Honorable D. Allan Bromley
Assistant to the President for Science & Technology
Office of Science & Technology Policy
Old Executive Office Bldg., #358
17th St. & Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear Dr. Bromley:

The aerospace marketplace of the 1990s is highly competitive, complex and global. Long the dominant player in this market, the U.S. aerospace industry is more dependent on export sales than ever in order to maintain its position. U.S. aerospace firms are therefore more exposed to the competitive practices of other countries. Foreign firms are expanding their sales base through international alliances. They are also working closely with their governments to position themselves for market share growth. As a result, advantages that the U.S. aerospace industry has long enjoyed--e.g., the economies of scale that result from a large domestic market--will not be so easily realized in the future.

The Aerospace Industries Association has just published a report that looks closely at the global aerospace market--and at the U.S. industry's advantages and disadvantages. "The U.S. Aerospace Industry in the 1990s: A Global Perspective" also discusses how major regional and product markets are developing, and explores a key market issue: technology development and transfer.

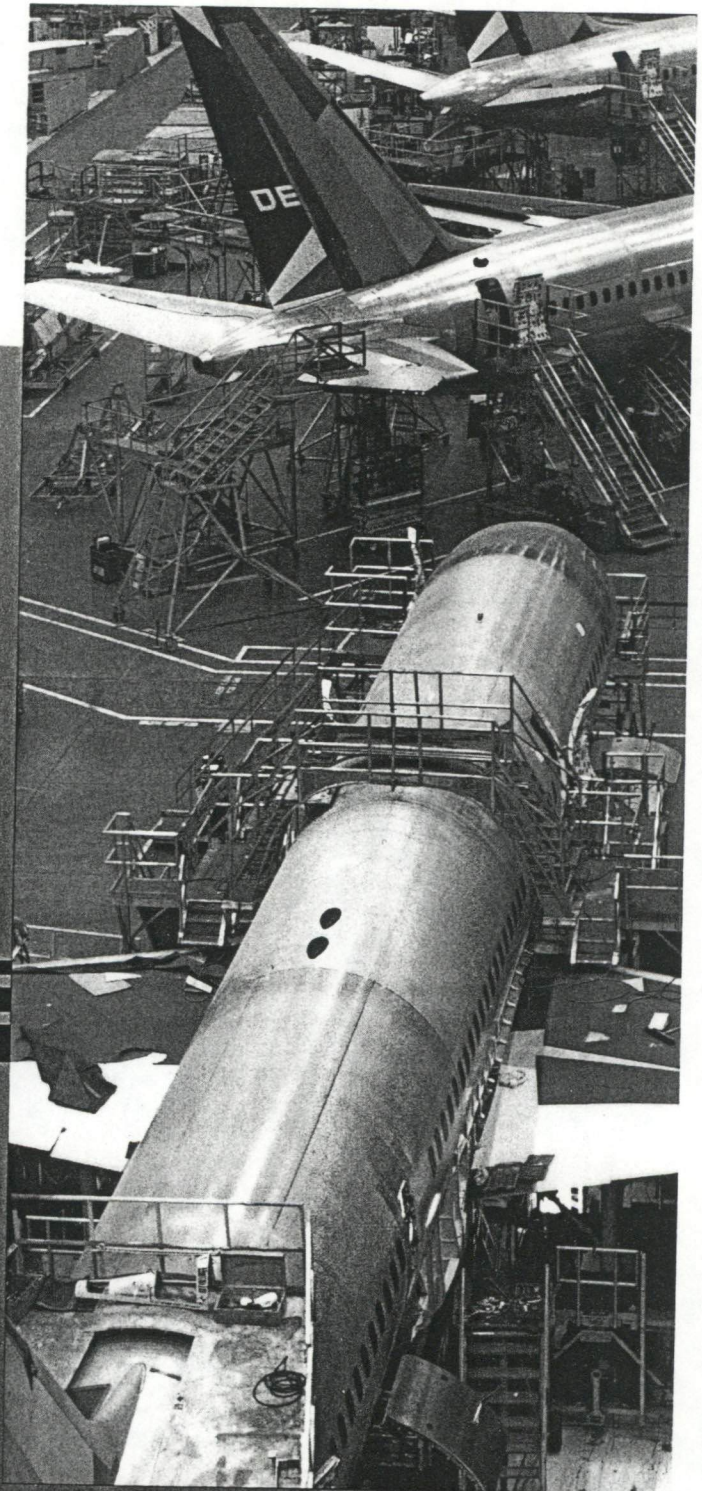
From my perspective, an important conclusion to be drawn from the report is that the traditional adversarial relationship between Government and industry works against maintaining a strong U.S. aerospace industry.

I sincerely hope that the strategies AIA proposes can form the basis of a positive dialogue between the industry and government policy-makers. The global aerospace market of the 1990s strongly challenges U.S. aerospace firms. The industry will not maintain as dominant a position in all market segments as it has in the past. However, I believe that Government and industry--in partnership--can ensure that the U.S. continues to lead the world in aerospace capabilities and sales.

Don Fuqua

DF: vcl
Enclosures (2)

The U.S. Aerospace Industry in the 1990s
A GLOBAL PERSPECTIVE



SUMMARY & HIGHLIGHTS

The U.S. Aerospace Industry in the 1990s A Global Perspective

The United States is the world leader in aerospace design and manufacturing but other countries are strong competitors. In a new report, "The U.S. Aerospace Industry in the 1990s: A Global Perspective" the Aerospace Industries Association takes a hard look at where it stands and how it can maintain or increase its market position.

The aerospace industry of the 1990s is global, dynamic, and complex—driven by fast-paced technological change and heavily influenced by national government support. The aerospace market is also characterized by numerous international partnerships of every sort. In this environment, the traditional "modus operandi" of many U.S. firms and the U.S. Government may be inappropriate for continuing success.

The U.S. Aerospace Industry in 1991

Since AIA published its 1988 report on *The U.S. Aerospace Industry and the Trend Toward Internationalization*, the U.S. industry has increased its international activities. As a result, both exports and imports continue to rise, but export growth has been considerable enough to ensure a continuing string of record trade surpluses. Aerospace has the largest positive trade balance of any U.S. manufacturing sector. Still, the U.S. world market share in aerospace is declining. Despite growing demand for aerospace products, there are an increasing number of market competitors.

In a changing world, where market access is often on a *quid pro quo* basis, U.S. companies cannot depend only on direct sales abroad of U.S. products manufactured in the United States. Other avenues of trade must be pursued. Consequently, the number of U.S./foreign partnerships is rising and U.S. companies are exploring new roles in these relationships.

U.S. aerospace manufacturers are producing for two very different markets,

although strong foreign competition and international cooperation—to one degree or another—are characteristic of both.

Defense Aerospace Market With the end of the Cold War, and despite lingering concern over a Soviet threat, the United States and its allies are more concentrated on regional threats to global peace. A lesson of the Persian Gulf War is that a strong defense is still necessary; at the same time, that lesson will not prevent the decline of the defense budgets of the United States and its allies. Instead, there will be increased emphasis on tactical systems, and on force mobility and deployment.

The U.S. defense industry is entering this new era from a weakened financial position resulting from government policies that limited profits and reduced the cash flow needed to meet increased operating capital requirements. Defense exports can offset some of the lost sales as the U.S. Government cuts defense spending. However, any number of sales are politically problematic for the United

States, and with enormous excess defense production capacity in the world, American companies can easily be supplanted as suppliers. The loss of key defense markets could mean loss of national influence in certain regions of the world.

The issue of economic competitiveness has grown in importance relative to purely defense-related concerns in the United States. Worries about the industrial/technology base have heightened discussion over foreign sourcing for defense system components, foreign investment in the United States, offset sales arrangements, and technology export through international defense cooperation. While many would have the United States pull back from cooperative relationships, other countries, particularly in Europe, are forging closer ties; this could limit U.S. participation in those markets. European countries are also strong competitors for defense sales around the globe.

Civil Aerospace Market The market for civil aerospace products is more promising than the defense market. Commercial production is the growing share of total U.S. industry output and

THE WHITE HOUSE

WASHINGTON

December 19, 1991

Dear Harry:

My exceedingly efficient mail handling system got a copy of your letter of December 11 to Karl Erb before mine arrived and when I called Karl to compare notes on possible funding sources for you, I learned that he had already dictated a reply. We are not usually that efficient but clearly both of us do appreciate the importance of the work that you are doing with respect to the AMS activities at the NSRL and believe strongly that this particular kind of work deserves to be well-funded because of its importance in programs of such magnitude that your expenses are not only lost in roundoff, but completely gone beyond the capacity of any of our local computers in terms of significant digits!

As Karl has suggested, both Will Happer, the new Director of the Office of Energy Research at DOE, and Erich Bretthauer, the Assistant Administrator for Science at EPA, will understand the importance of what you are doing and in the very unlikely event that they fail to do this, Karl and I will make sure that their education is expanded appropriately. What you need is a relatively brief proposal statement that spells out the importance of these measurements for the programs for which Happer and Bretthauer are responsible.

It was good to be back at Rochester, and I was very much impressed by what Liz Thorndike has been able to accomplish in her Center for Environmental Information. Unfortunately, my schedule tightened up at both ends just shortly before I took off for Rochester, so I was unable to participate in a number of the events that Liz had arranged for earlier in the first evening, and during the following morning.

Please keep us in touch so that we can be sure that your work continues and in the meantime, warmest wishes for a merry Christmas and a happy, healthy and rewarding 1992 to both you and Shirley.

Sincerely yours,



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

Professor H. E. Gove
Nuclear Structure Research Laboratory
University of Rochester
Rochester, New York 14627

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9125137
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: GOVE H.E.: UNIVERSITY OF ROCHESTER

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/11/91

SUBJECT: HE REQUESTS DR. BROMLEY'S ADVICE ON FUNDING SOURCES
FOR THE UNIVERSITY'S AMS PROGRAM.

DIRECTORATE STAFF
ASSIGNED: PHYSICAL SCIENCES ASSIGNED:

ACTION STAFF
REQUIRED: FOR DAB'S SIGNATURE ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 12/31/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
ENVIRONMENT

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

OSTP RECEIVED: 12/17/91 DEPT RECEIVED:
FILE: P-PHYSICAL SCIENCES
CENTRAL FILES:

5137
A
RECEIVED

December 11, 1991

31 DEC 17 8 9: 50

USIP
MAIL ROOM

The Honorable D.A. Bromley
Executive Office of the President
Office of Science and Technology Policy
Old Executive Office Building
Room 360
Washington D.C. 20506

Dear Al:

It was a pleasure to meet you again and to attend your speech to the members of the Center for Environmental Information at their 17th annual meeting and dinner in Rochester on November 6, 1991.

In connection with your talk you may recall I raised the question of the problem of cleanup of high-level nuclear waste at the nuclear-fuel reprocessing facilities at Savannah River, Idaho National Engineering Laboratory and Hanford. For the past three years or so we have been involved with scientists from the DOE's Environmental Measurement Laboratory in New York, the USGS Project Office, INEL and others in measurements of ^{36}Cl in ground water and soil cores at the first two of these sites. Almost two hundred samples have been measured so far. At both places we have documented substantial emission of ^{36}Cl from reprocessing plant stacks and in ground water - the latter through the intentional introduction of radioactive waste into storage ponds. I should just note for your information that the ^{36}Cl is likely produced in the nuclear fuel elements by thermal neutron capture in trace chlorides in the fuel bundles. It is released as a result of the hot nitric acid treatment used to dissolve the fuel. It, in itself, is merely a tracer and poses no radiological hazard. God only knows what else is released that does - one could make a guess that would not require a soaring imagination. I should add that, until a year or so ago, we were also involved with scientists at Los Alamos in measurements of ground water at Yucca Mountain in Nevada - the only site presently being considered for the storage of spent power plant fuel elements and other high level radioactive waste from civilian sources. As you know this project is on hold due to legal maneuvering but there is some indication that action on this front will resume in the near future.

Until very recently the NSRL at Rochester has been the only laboratory in the USA capable of making these measurements. Now, however, the tandem facility at Purdue University has also achieved a similar capability. The value of and need for such measurements is so great there should be plenty of work for both laboratories and more. Although we and Purdue charge on a per sample basis for the measurements in our case, at least, it does not cover our costs (our AMS operation is required to be financially independent of the NSF grant that provides the operating funds for the NSRL for research in nuclear science). What we badly need is a modest base line funding for this part of our AMS operation. In principle such funding

should be available from the DOE's Environmental Restoration and Waste Management Office for our measurements at the fuel reprocessing sites and from the Office of Civilian Radioactive Waste Management for our Yucca Mountain work when it resumes. The money we require would be lost in the noise of the amounts needed to meet the nation's radioactive waste clean-up and management needs.

I am writing to ask you whether these are the appropriate offices to approach for such funding and, if so, who the individuals are in these organizations we should contact. Any advice your office can provide on this and on other possible funding sources would be greatly appreciated. You are undoubtedly the only person in a high federal office who appreciates the power of AMS and how it could contribute to help solve a problem of unparalleled seriousness faced by this nation

Shirley asks me to give you her very best wishes as do I.

Yours sincerely


H.E. Gove

THE WHITE HOUSE
WASHINGTON

December 19, 1991

Dear Mr. Gnuse:

I am responding to your letter of November 25 in which you tell me of your career planning dilemma.

Your decision to obtain a physics and a philosophy degree was, I think, a very wise one because it leaves open the greatest number of options for you. You have a number that you might wish to consider and I must tell you that for any of the activities that you mention in your letter, graduate work is almost essential. Your choices are to obtain a law degree, a business degree, or an advanced degree in science or technology. From a purely practical point of view, any one of those three would be of greater value to you were you interested in working in policy circles in Washington than would specific training in political science which I have not found to be notably helpful for the real world. If you chose the JD route, then you clearly have the possibility of both industrial and governmental activities open to you. Whereas the MBA route is more targeted toward the private sector. The advance degree in one of the physical sciences or in engineering is again a very general one that closes out few options and represents the kind of training that would be required for you to play a senior role in policy circles. If you choose an industrial career then the PhD is a very useful union card because without it, your opportunities will always be limited in technical areas. But if your focus is on management, then the MBA is more to the point because the independent research associated with the PhD will be of little or no use to you.

I would suggest that you seriously consider getting one of these graduate degrees and once you have accomplished that end, there are a number of specific fellowship programs, many of which are administered by the American Association for the Advancement of Science, that can provide you with an interface into government activities if you choose to follow that path. These fellowship programs are associated with the various professional societies but the AAAS provides an introductory period of several weeks wherein the new fellows, either Congressional, diplomatic, or Executive Branch get exposed to senior members of the Administration and of the Congress, and get an opportunity to decide what part of the Washington scene is of greatest interest to them.

With your Yale background I think that you will have no real difficulty in whatever area you choose. So let me then just wish you every success.

With all best wishes,

Sincerely yours,

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

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

Mr. John Gnuse
Box 1774 Yale Station
New Haven, Connecticut 06520

"Document Control"

DOCUMENT NUMBER: 9125004
DIRECTORATE STATUS

TYPE: ACTION
ORIGINATOR: 02

STATUS I

FROM: GNUSE, John: YALE UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/25/91

SUBJECT: HE IS A FORMER STUDENT OF DR. BROMLEY'S AND IS
REQUESTING DR. BROMLEY'S ADVICE ON PURSUING A CAREER
IN SCIENCE POLICY.

DIRECTORATE
ASSIGNED: D. Allan Bromley

STAFF
ASSIGNED:

ACTION
REQUIRED: AS APPROPRIATE

STAFF
ACTION:

OSTP DUE DATE: 12/17/91
DATE COMPLETED: SENDER'S DUE DATE: STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO:

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 12/04/91
FILE: P-DAB-PERSONAL

DEPT RECEIVED:

CENTRAL FILES:

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RECEIVED

John Chase
Box 1774 Yale Station
New Haven, CT 06520

91 DEC

91 DEC 6 49:48

Dr. D. Allan Bromley
Science Advisor of the President
Executive Office of the President
Office of Science and Technology Policy
Old Executive Office Building, Room 360
17th and Pennsylvania Avenue, NW
Washington, DC 20506

MAIL ROOM

OSTP
MAIL ROOM

November 25, 1991

Dear Dr. Bromley,

I was a student of yours during your last semester at Yale. I took your course on Science and Public Policy the spring of my Freshman year. At that time I was unsure about whether I should continue studying science or instead concentrate on humanities. Your seminar convinced me that even if I do not commit my career to research, a strong academic background in science will inevitably be extremely valuable. Following that philosophy I have continued along the BS track in physics as part of a broad liberal arts education. I will be graduating in May with a degree in Physics and Philosophy. In addition to the standard physics curriculum I have had the opportunity to work on a number of research projects going on here at Yale. This past summer I worked with John Markey at the new Positron Emission Tomography Center sponsored by the Yale Medical School. I am currently working with Shiva Kumar on a Senior Project which concerns the possible structure of quark-gluon plasma which his group hopes to study with the proposed RHIC accelerator at Brookhaven. I am considering going on to graduate school because I continue to find the subjects extremely interesting and challenging, however I can not picture myself as a career physicist. As previously stated, I have been studying physics under the assumption that no matter what I eventually chose to do, a strong technical background will be extremely useful. My dilemma at this point is to determine what other kinds of work I might find as rewarding considering my background. I have considered,

for example, some of the financial fields that are looking for graduates with technical inclinations but I just don't seem to find that kind of work very appealing. I would prefer a field where I could continue to develop and utilize my technical skills.

Besides physics, another longtime interest of mine has been government. When I arrived at Yale, I expected that I would most likely study political philosophy and then get a job in Washington. I eventually decided that studying physics would be a more challenging learning experience, however, I am still considering working in Washington. I am looking for ways to somehow exploit my technical background within the beltway. I spent a summer working in Congress for a member of the Science, Space and Technology Committee researching technical issues concerning topics such as space policy and other aspect of scientific development. I have friends who have worked for the OTA and have found it an extremely rewarding experience. I find it conceivable that I would really enjoy this type of work. I recall that before you left you suggested to me that during my senior year I get in touch with you for advice if I continued to be anyway interested in working in science policy. Now that time has come, the idea of working in the government on issues concerning technical development continues to be very appealing. I am eager to hear what kinds of suggestions you may be able to offer.

Sincerely,

A handwritten signature in dark ink, appearing to read 'John Gnuse', written over a horizontal line.

John Gnuse

THE WHITE HOUSE

WASHINGTON

December 18, 1991

Dear Charles:

First of all, I am terribly sorry to hear of the loss of your home and all your belongings. I can appreciate what an enormous disaster this must be for you and Jody and I am afraid that there is nothing that anybody can say that really will help. One of my associate directors here in the office had the fire burn up to his rear steps but, fortunately, it stopped at that point so he came perilously close. Unfortunately, as you note, a number of his neighbors, in fact, died in the fire.

With this disaster facing you I am sure that your stay in Germany is no where near as pleasant as you had hoped that it would be and I am sorry about that.

Perhaps a little on the sunnier side, I think that I can assure you that the situation in nuclear physics will, in fact, not be any where near as bad as the rumors had suggested would be the case, and I do not anticipate a cut at all in the overall funding for the field. What you heard about was something of a trial balloon.

With respect to the Tiger Teams, I understand completely what you tell me and have heard it from a great many others. Unfortunately, the Teams found a number of truly egregious situations in some of the national laboratories and this has provided a basis for a much more sweeping approach than I think anyone had anticipated at the outset. I have been told by a number of directors of the major laboratories that, for all practical purposes, they have been shut down for a number of months first, because of the safety Tiger Team and, subsequently, because of a second wave of Teams investigating procurement and accounting practices. Unfortunately, once something of this sort develops a momentum of its own, it is almost impossible to get it stopped, but I understand only too well the difficulties that are being created and am talking with the appropriate people here in Washington to see if we can get activities refocused on research.

I am very sensitive to the point you make about NSF where year after year, although the total Foundation received significant increases, the brand name sciences received inflationary increases, if that. This year we requested an 18% increase for NSF as an institution, and further requested a 16% increase for the basic sciences. The Congress has responded almost completely to our request so I hope that fiscal year 1992 will be a substantially better one than in the past for NSF grantees. We have also boosted the funding for individual investigator initiated research through NIH by close to 10% so that side of the house will see some improvement as well. The situation in DOE is, of course, more difficult because of the construction projects at CEBAF, RHIC, Fermi Lab, and, of course, SSC. All of this is still somewhat up in the air and will be sorted out within the next few months.

It was good to hear from you but I am sorry that your news was so tragic.

Let me take the occasion to wish you and Jody as happy as possible a holiday and as rewarding as possible the remainder of your stay in Europe.

With warmest best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Allan", with a stylized flourish extending from the end.

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

Dr. Charles Goodman
Institut fuer Kernphysik
Forschungszentrum Juelich GmbH
D-5170 Juelich, Germany

"Document Control"

TYPE: INFORMATION

DOCUMENT NUMBER: 9125061

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: GOODMAN, Charles: INDIANA UNIVERSITY CYCLOTRON FACILITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/03/91

SUBJECT: A LETTER EXPRESSING HIS CONCERN WITH THE DOE "TIGER
TEAMS" AND THE FUTURE OF AMERICAN SCIENCE.

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
PHYSICAL SCIENCES

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

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

DEPT RECEIVED:

CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

December 18, 1991

Dear David:

Many thanks for your letter of December 6 in which you spell out the problems with the biotechnology passback from OMB. I appreciate your identifying the EPA and FDA problems in detail and agree with you that it is important that we try to bring these two agencies into line with the Committee recommendations. I shall see what I can do in that direction.

Let me take this occasion to thank you for the outstanding leadership that you provided in this very difficult task during this past year. I believe that you and your colleagues in the biotechnology crosscut have developed a biotechnology research program of which we, as a Nation, can be proud, and I want to express to you my personal thanks for the enormous effort that I know you personally devoted to the completion of the task in such excellent fashion.

With warmest best wishes,

Sincerely yours,



D. Allan Bromley
The Assistant to the President
for
Science and Technology
and
Chairman, Federal Coordinating Council
for
Science, Engineering and Technology

Dr. David J. Galas
Associate Director
Health and Environmental Research
Department of Energy
Route 270
Germantown, Maryland 20545

"Document Control"

TYPE: ACTION

ORIGINATOR: 02

DOCUMENT NUMBER: 9125089

STATUS I

DIRECTORATE STATUS

FROM: GALAS, David J.: DEPARTMENT OF ENERGY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 12/06/91

SUBJECT: RE: THE BIOTECHNOLOGY PASSBACK FROM OMB. HE LISTS
SEVERAL PROBLEMS HE HOPES CAN BE ADDRESSED.

DIRECTORATE
ASSIGNED: LIFE SCIENCES

STAFF
ASSIGNED:

ACTION
REQUIRED: DIRECT REPLY

STAFF
ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 12/26/91
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley
ENVIRONMENT
Vickie Sutton

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 12/12/91 DEPT RECEIVED:
FILE: LIFE SCIENCES-BIOTECHNOLOGY

CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

December 18, 1991

Dear Len:

It was good to hear from you. I had already heard from Erich Vogt that you were in Vancouver talking with him about the possibility of playing a role in the construction of the KAON project. Erich remains enormously optimistic about the necessary funding and I must say that no one else could possibly have brought that project as far forward as has Erich in the face of some substantial resistance from Canadian universities and the Canadian scientific community generally.

I note that you will be in Washington on January 13 and 14 and, unfortunately, find that I am committed for both of those evenings. Would it be possible for you to get away for an hour or so at lunch because I find that I am free both days and I would be delighted to take you to lunch at the Executive Mess in the White House. If that is possible, please do give me a call at 202/456-7115 so that I can make the necessary reservation.

It will be great to see you again. Just yesterday I got in the mail from Harry Fulbright at Rochester a tiny vile labeled in my handwriting from 1950 containing, what I believe to be, the world's earliest 53 milligrams of separated Carbon 13. You may recall that it came in the form of calcium carbonate and I had to do a double metastasis reaction with lead chloride and subsequently break down the affluent carbon dioxide by reacting it with hot magnesium shavings. It really is a wonder that we did not blow up at least one section of Bausch and Lomb during this particular foray into chemical engineering. Those were good days but they seem a very long time ago.

I hope that we can get together in January and in the meantime let me wish you and your family the happiest of holidays and a healthy and rewarding 1992.

With warmest regards,

Sincerely yours,

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

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

Dr. L. M. Goldman
Bechtel
Post Office Box 193965
San Francisco, California 94119

THE WHITE HOUSE
WASHINGTON

December 4, 1991

Dear George:

It was indeed a pleasure chatting with you and Gail Wilensky during the recent meeting of friends of The National Library of Medicine. I was interested to receive the information about the suitable discovery corporation. It looks fascinating, but it is far enough from my area of personal expertise so that I would not venture any professional comment.

Let me only wish you every success with it.

With all best wishes,

Sincerely yours,

A handwritten signature in dark ink, reading "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and the last name "Bromley" clearly distinguishable.

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

Dr. George S. Goldstein
Lodge Road
Briarcliff Manor, New York 10510

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9124687
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: GOLDSTEIN, George S.

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/28/91

SUBJECT: A THANK YOU TO DR. BROMLEY FOR ATTENDING THE FRIENDS
OF THE NATIONAL LIBRARY OF MEDICINE PATRON'S DINNER
AND ENCLOSING SOME INFORMATION ABOUT HIS NEWLY
FORMED PHARMACEUTICAL R&D COMPANY.

DIRECTORATE STAFF
ASSIGNED: LIFE SCIENCES ASSIGNED:

ACTION STAFF
REQUIRED: DRAFT FOR DAB ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 11/20/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

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

OSTP RECEIVED: 11/06/91
FILE: P-LIFE SCIENCES

DEPT RECEIVED:

CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

November 29, 1991

Dear Vasant:

In your letter of August 22, you mention that in your capacity as President of the Indian Science Congress you were sending me separately an invitation to attend the 79th Session of the Congress scheduled for January 1992. Unfortunately, this invitation has not arrived but, in any event, because the President will be travelling to the Western Pacific in January of next year and because I will be travelling with him, it would, in any case, not have been possible for me to join you in Baroda much as I would have liked to do so.

I trust that you are enjoying your new position as Adviser to the Prime Minister on Science and Technology and I am hopeful that our paths will cross in the not too distant future. I recall your most recent visit and our discussions about the importance of moving the science and technology initiative back to a more obvious head of state status.

Unfortunately, the science and technology cooperation between our two countries is still at a lower level than I would like, in part, because of the ongoing difficulties in obtaining agreement on protection of intellectual property rights. I am meeting with Ambassador Carla Hills within the next week to attempt to resolve these questions at our end because I feel it very important for us not to completely lose the momentum that we developed back in the early '80s when we worked together to make the science and technology initiative a reality.

Many thanks for thinking of me in conjunction with the Indian Science Congress. I look forward to working with you in your new capacity and in particular look forward to increasing the cooperation in science and technology between our two countries.

With warmest wishes,

Sincerely yours,



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

Dr. Vasant Gowariker
Adviser to the Prime Minister
on Science and Technology
The Government of India
New Delhi, India

"CORRESPONDENCE TRACKING"

TYPE: ACTION DOCUMENT NUMBER: 9124087
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: GOWARIKER, Vasant: Advisor to the Prime Minister on S&T, India

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 08/22/91

SUBJECT: NOTICE THAT AN INVITATION WILL COME UNDER SEPERATE
COVER TO ATTEND THE 79TH SESSION OF THE CONGRESS
SCHEDULED TO BE HELD IN BARODA IN JANUARY 1992 AND
HOPE THAT DR. BROMLEY WILL BE ABLE TO PARTICIPATE.

DIRECTORATE STAFF
ASSIGNED: INTERNATIONAL/POLICY ASSIGNED:

ACTION STAFF
REQUIRED: FOR DAB'S SIGNATURE ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 09/20/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

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

OSTP RECEIVED: 09/19/91 FILE: P-INTERNATIONAL
DEPT RECEIVED:



RECEIVED

91 SEP 19 A 9:10

OFFICE OF THE
DIRECTOR

4087
DR VASANT GOWARIKER
ADVISER TO PRIME MINISTER
ON
SCIENCE & TECHNOLOGY

August 22, 1991

Dear Allen,

Many thanks for your letter of July 9, 1991. Your thoughts are heartening indeed, and I fully reciprocate your sentiment.

I recollect the fruitful and positive interaction I have had with you earlier in my capacity as Secretary of the Department of Science and Technology, both before and after you took over your present assignment. With a great deal behind us, there is certainly much to look forward to in giving shape to things that would contribute to the welfare of our two great democracies.

To catalyse this process, I am, in my capacity as President of the Indian Science Congress, sending to you separately an invitation to attend the 79th Session of the Congress scheduled to be held in Baroda (Gujarat) in January 1992. As you are aware, it is the largest single assembly of scientists in India, meeting annually in different parts of the country, and providing an active forum for exchange of ideas on important scientific and societal issues. I hope you will be able to participate.

Yours sincerely,

(Vasant Gowariker)

Dr. D. Allan Bromley,
Science Adviser to the President,
The White House,
Washington, D.C.,
U.S.A.

THE WHITE HOUSE
WASHINGTON

December 4, 1991

Dear Dr. Grosvenor:

Many thanks for your letter of November 6 with which you send me a preprint copy of the Society's Committee for Research and Exploration's report on the environmental consequences of the Persian Gulf War. Judging from just the xerox copies, it is clear that this is not only an extraordinarily useful document, but also a very beautiful one.

We here at the White House would very much appreciate receiving 50 copies of the report.

Let me take this opportunity to congratulate you and the Society on your initiative and rapid response to this tragic but unique unplanned experiment in environmental science. You and your associates have played an essential role in obtaining the very large amount of data that we now have concerning the environmental consequences of the Persian Gulf War.

Sometime at your convenience I should very much look forward to the possibility of visiting the Society's headquarters. As someone who grew up in Canada carefully reading each issue of the *National Geographic* as it was delivered, I feel that I have, in many ways, grown up with the Society, but I have not yet had the pleasure of visiting its headquarters.

With warmest thanks and all best wishes,

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and the last name "Bromley" clearly distinguishable.

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

Dr. Gilbert M. Grosvenor
President and Chairman
National Geographic Society
Washington, D.C. 20036

4728
National Geographic Society

RECEIVED

WASHINGTON, D.C. 20036

91 NOV 8

A10: 26

GILBERT M. GROSVENOR
PRESIDENT AND CHAIRMAN

OFFICE OF THE
DIRECTOR

November 6, 1991

Dr. Allen Bromley
Science Advisor to the White House
Old Executive Office Building
Room 360
Washington, DC 20500

Dear Dr. Bromley,

We very much appreciate the White House's support of the Society's Committee for Research and Exploration's project to coordinate assessment of the environmental impact of the Persian Gulf War. Thank you.

A result of this is a 48-page, four-color guide to remote-sensing data available for Kuwait and environs. (Attached is a galley for your perusal.) This publication should be available the first week in December, but first we need to know how many copies to print. How many copies would the White House like? Could we have your response (order form enclosed) by November 20?

Rapport with those in government who share our interest in scientific research and our concern for environmental quality has been another gratifying result of this project, and I hope we can repeat this sort of partnership in the future.

Best regards,



Gilbert M. Grosvenor

"Document Control"

TYPE: ACTION DOCUMENT NUMBER: 9124728
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

FROM: GROSVENOR, Gilbert M.: NATIONAL GEOGRAPHIC SOCIETY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 11/06/91

SUBJECT: A THANK YOU FOR THE WHITE HOUSE'S SUPPORT FOR THE
SOCIETY'S RESEARCH PROJECT ON THE ENVIRONMENTAL
IMPACT OF THE PERSIAN GULF WAR, AND REQUESTS TO KNOW
HOW MANY COPIES OF THE REPORT WE WANT.

DIRECTORATE STAFF
ASSIGNED: ENVIRONMENT ASSIGNED:

ACTION STAFF
REQUIRED: DIRECT REPLY ACTION:

SENDER'S DUE DATE: 11/20/91
OSTP DUE DATE: 11/20/91 STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

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

OSTP RECEIVED: 11/08/91 DEPT RECEIVED:
FILE: P-ENVIRONMENT
CENTRAL FILES:

THE WHITE HOUSE
WASHINGTON

December 2, 1991

Dear Suzi:

Many thanks for sending me a copy of your book **Scandal: The Culture of Mistrust in American Politics**. I have read it from cover to cover with great interest. Quite apart from the fascinating content, as an old English major, let me say what a pleasure it is to read truly literate prose!

I too recall with pleasure the dinner that we shared a few months ago under the National Academy of Science's sponsorship and our discussions at that time. I believe that in your book you have struck a very significant blow for sanity in today's climate of media extremes.

Congratulations and warmest thanks.

Sincerely yours,



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

Dr. Suzi Garment
American Enterprise Institute
1150 17th Street, N.W.
Washington, D.C. 20036

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9124215

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: GARMANT, Suzi

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/23/91

SUBJECT: A COPY OF HER BOOK, "SCANDAL, THE CULTURE OF
MISTRUST IN AMERICAN POLITICS".

DIRECTORATE
ASSIGNED: STAFF
ASSIGNED:

ACTION
REQUIRED: STAFF
ACTION:

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

COPIES TO: D. Allan Bromley

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

OSTP RECEIVED: 09/27/91
DEPT RECEIVED:

FILE: DAB-PERSONAL

THE WHITE HOUSE
WASHINGTON

November 29, 1991

Dear Professor Golay:

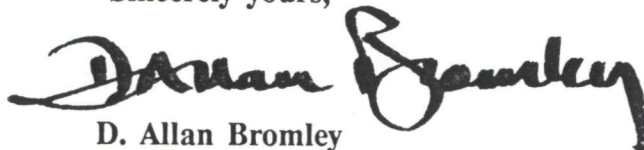
This is a much belated thank you for sending me a copy of the Proceedings of the First MIT International Conference on the Next Generation of Nuclear Power Technology. Because this is an area of technology that is of great interest to me and one where I believe that my office has substantial responsibility, I found these Proceedings to be extremely useful.

I am convinced that only the nuclear power option can provide the large blocks of electrical energy that our society will require in the decades ahead when environmental considerations will, in my opinion, make it increasingly difficult for us to justify or obtain approval for the construction of new fossil fueled plants. This places tremendous importance on the development of a new generation of advanced nuclear designs. My office is working closely with the Department of Energy and the Nuclear Regulatory Commission to try to ensure that work proceeds expeditiously on the new designs.

I would very much appreciate receiving from you the Proceedings of the Second MIT Conference held this past October as soon as these become available. In the meantime, I would only congratulate you on your initiative in organizing these conferences in such excellent fashion.

With all best wishes,

Sincerely yours,

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

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

Dr. Michael W. Golay, Director
Program for Advanced Nuclear Power Studies
Department of Nuclear Engineering
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139

"CORRESPONDENCE TRACKING"

DOCUMENT NUMBER: 9124151

DIRECTORATE STATUS

STATUS I

TYPE: ACTION
ORIGINATOR: 02

FROM: GOLAY, Michael W.: PROGRAM FOR ADVANCED NUCLEAR POWER STUDIES

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 09/19/91

SUBJECT: A COPY OF THE, "PROCEEDINGS OF THE FIRST MIT
INTERNATIONAL CONFERENCE ON THE NEXT GENERATION OF
NUCLEAR POWER TECHNOLOGY" AND A REQUEST FOR IDEAS
REGARDING HOW TO ENHANCE THE VALUE OF THE SECOND MIT
INTERNATIONAL CONFERENCE ON THE NEXT GENERATION OF . . .

DIRECTORATE
ASSIGNED: PHYSICAL SCIENCES

STAFF
ASSIGNED:

ACTION
REQUIRED: AS NECESSARY

STAFF
ACTION:

OSTP DUE DATE: 10/08/91
DATE COMPLETED:

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

COPIES TO: D. Allan Bromley
INTERNATIONAL/POLICY

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 09/24/91
DEPT RECEIVED:

FILE: P-PHYSICAL SCIENCES-ENERGY



**PROGRAM FOR
ADVANCED NUCLEAR
POWER STUDIES**

DEPARTMENT
OF NUCLEAR
ENGINEERING

MICHAEL W. GOLAY
PROGRAM
DIRECTOR

ROOM 24-215
TELEPHONES (617) 253-5824
(617) 253-5233
FAX (617) 258-8863

September 19, 1991

Allan Bromley
Science Advisor to the President
Office of Science and Technology Policy
Old Executive Building, Room 360
17th and Pennsylvania Ave, NW
Washington, DC 20506

Dear Dr. Bromley,

You may recall that the MIT Program for Advanced Nuclear Power Studies held the First MIT International Conference on the Next Generation of Nuclear Power Technology in October 1990. Its purpose was to stimulate a high level discussion of future use of nuclear power technology among leaders from the different organizations and constituencies likely to play major roles affecting how this technology is used.

The structure of the meeting utilized six topical sessions, a domestic United States discussion panel and an international panel. In each session keynote and respondent papers were used to introduce the major points concerning a major topic, and most of the session was devoted to a discussion among the attendees. The meeting was private, with attendance by invitation. The enclosed *Proceedings* contains the papers presented and synopses of the discussions.

I believe that the session papers and discussions are unusually thoughtful. They are likely to be of interest to those who are concerned with whether and how nuclear power can be broadly acceptable in the future. Because of your evident interest in these questions, I am sending you the enclosed copy of the *Proceedings*.

I hope that you will find this material interesting. If you would like any information about the MIT Program for Advanced Nuclear Power Studies, or if you have any comments concerning the First MIT International Conference on the Next Generation of Nuclear Power Technology, I would enjoy hearing from you.

Finally, I should note that our series of international conferences on future nuclear power technology is intended as a vehicle for stimulation of consensus regarding how to achieve a broadly acceptable technology. It is intended to foster the refinement of ideas and an intellectual community concerning this topic. The Second MIT International Conference on the Next Generation of Nuclear Power Technology is now being organized for October 13 and 14, 1992. Your ideas regarding how to enhance the value of this conference would be greatly appreciated.

Sincerely,

Michael W. Golay
Michael W. Golay
Professor of Nuclear Engineering
Director, Program for Advanced
Nuclear Power Studies

MWG:pjc

encl

RECEIVED
91 SEP 24 P 2
OFFICE OF THE
DIRECTOR

THE WHITE HOUSE
WASHINGTON

October 21, 1991

Dear Dr. Giles:

Thank you for your letter of August 30 inviting me to address the awards luncheon for the **33rd Structures, Structural Dynamics and Materials Conference** scheduled for April 13-15, 1992 in Dallas, Texas. My apologies for the much belated response.

With the understanding that it is always possible that Presidential scheduling may force a change in my plans, I would be happy to accept your invitation. As I am sure you are aware, Presidential requests require that I have a great deal of flexibility in my scheduling, and conflicts can arise at the last minute.

I appreciate your thinking of me and look forward to hearing from you again as the event approaches.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "D. Allan Bromley". The signature is fluid and cursive, with the first name "D. Allan" and last name "Bromley" clearly distinguishable.

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

Dr. Gary L. Giles
Interdisciplinary Research Office
Mail Stop 246
NASA Langley Research Center
Hampton, Virginia 23665-5225

SEP 11 1991

From: Chairman, 33rd Structures, Structural Dynamics and Materials (SDM) Conference

Dr. Gary L. Giles
Interdisciplinary Research Office
Mail Stop 246
NASA Langley Research Center
Hampton, VA 23665-5225

Tel.: 804-864-2811

FAX: 804-864-8293

Date: Aug. 30, 1991

To: Office of Science and Technology Policy
Attn: Marian Nida
Room 358
Old Executive Office Building
Washington, DC 20500

OK will accept

I recently contacted your office by telephone to inquire about the procedure for inviting Dr. Allan Bromley to speak at the awards luncheon for the 33rd Structures, Structural Dynamics and Materials (SDM) conference. The 1992 SDM conference is being held in The Grand Kempinski Hotel in Dallas, Texas on April 13-15, 1992. The awards luncheon is scheduled for Tuesday, April 14. At the luncheon, we would like Dr Bromley to discuss the High Performance Computing and Communication Program (HPCCP). This letter is to provide background information about the conference and to indicate our motivation for seeking Dr. Bromley for our luncheon speaker.

The SDM conference is sponsored by the American Institute of Aeronautics and Astronautics (AIAA), American Society of Mechanical Engineers (ASME), American Society of Civil Engineers (ASCE), American Helicopter Society (AHS), and American Society of Composites (ASC). This conference is held annually and is the premier forum for presentation of technical papers describing the latest advances in disciplines related to the analysis and design of aerospace structures. Yearly attendance is over 600 participants from the aerospace industry, government, and university communities. Additional information is contained on the attached conference synoptic.

The motivation of the conference organizing committee for seeking Dr. Bromley as a luncheon speaker is to provide increased awareness of HPCCP within the SDM community and to stimulate participation in this activity. We believe that it is important that the emerging and planned advanced computing capabilities from HPCCP be utilized to fullest advantage for the analysis and design of aerospace structures. Such utilization would complement similar activities by the computational fluid dynamics (CFD) community. I understand that Dr. Bromley is personally interested in and is an active advocate of HPCCP. A description of the program from his perspective and his vision of resulting benefits would be an important contribution to the SDM community and to our conference in Dallas.

If Dr. Bromley's schedule permits and he has an interest in providing this luncheon presentation, I will direct a formal letter of invitation to him. Thank you for your attention to this inquiry.

Sincerely,

Gary L. Giles

Gary L. Giles
General Chairman,
33rd SDM Conference

9/10

*Dr. Phillips,
Used comments from
AD's*

AIAA/ASME/ASCE/AHS/ASC 33rd STRUCTURES, STRUCTURAL DYNAMICS, AND MATERIALS (SDM) CONFERENCE

April 13-15, 1992 - The Grand Kempinski Hotel - Dallas, Texas

The 33rd SDM Conference is sponsored by AIAA, ASME, ASCE, AHS, and ASC. This established conference represents a widely acknowledged annual event that provides a unique forum dedicated to the latest developments in the collective disciplines of structures, structural dynamics, materials, design engineering, and engineering optimization. The 33rd SDM Conference will emphasize new and emerging SDM technologies. Papers are solicited in the following basic disciplinary areas and on other related subjects.

STRUCTURES - Encompassing environment and loads definition, durability and damage tolerance, weight and cost trades, reliability and life-cycle considerations, utilization of advanced materials, analytical and computational methods, fracture mechanics, thermal structures, structural stability and postbuckling behavior, and experimental methods.

STRUCTURAL DYNAMICS - Covering analytical, computational and experimental methods for determining resonance, damped and forced vibrations in both transient and steady-state response to excitations due to gusts, acoustics, impact, shock, operational loads, and active/passive vibration suppression. Also, unsteady aerodynamics, aeroelastic stability, dynamic interactions with on-board flight controls and propulsion systems, contained fluids, and transient thermal environments.

MATERIALS - Including metals, ceramics, polymers, fiber composites, and hybrids. Covering material processing, characterization, destructive and non-destructive evaluations, and specific unique applications. Characterization by experimental and analytical methods to include elastic/inelastic properties, fatigue and fracture, creep and environmental sensitivity.

DESIGN ENGINEERING - Emphasizing product design and dealing with creative design concepts for improved efficiency, effectiveness, quality, reliability, maintainability, producibility as well as reduced costs of complete systems and their components. Includes assessment of the impact of new technology on structure design and the application of CAD/CAM.

ENGINEERING OPTIMIZATION - Focusing on the methodology of design. Encompassing design oriented analysis, CAE, sensitivity analysis, formal optimization, artificial intelligence, parametric programming, feature-based technology, all in the context of integrated design processes which recognize subsystems as parts of complete multidisciplinary systems.

SELECTION OF PAPERS - ABSTRACT DEADLINE - AUGUST 15, 1991. Selection of papers will be based on abstracts of no less than 1000 words with key figures and reference to pertinent publications in existing literature. Authors must clearly identify in the abstract new or significant aspects of their work. Six copies of each abstract with figures and references must be submitted by August 15, 1991 to the Technical Program Chairman; other inquiries should be directed to the Conference General Chairman.

Dr. O. Hal Burnside
Technical Program Chairman
Southwest Research Institute
Structural Engineering Department
6220 Culebra Road
San Antonio, Texas 78228-0510
(512) 522-2332
FAX (512) 522-3042

Dr. Gary L. Giles
Conference General Chairman
NASA Langley Research Center
Interdisciplinary Research Office
Mail Stop 246
Hampton, Virginia 23665-5225
(804) 864-2811
FAX (804) 864-8293

The abstract must be accompanied by an Abstract Submittal Form which is published monthly in the AIAA Bulletin section of *Aerospace America*. The abstract must include name, company affiliation, telephone number and complete mailing address of EACH AUTHOR. In the case of multiple authors, clearly indicate which author should receive correspondence and who will be the presenter. Authors should also indicate membership in AIAA, ASME, ASCE, AHS, or ASC and clearly state in the Abstract Submittal Form the category of Structures, Structural Dynamics, Materials, Design Engineering or Engineering Optimization that he/she considers to be most appropriate. Authors will be notified of acceptance/rejection of their papers by November 12, 1991. Authors of accepted papers will be required to provide a complete camera-ready manuscript by February 3, 1992, for inclusion in the Proceedings.

Special sessions will follow the format of previous years. Details of Work-in-Progress, Technology Exhibit/Demonstration, and Student Paper sessions are to be published in the Call for Papers that will appear in *Aerospace America*.

This conference will be held at the Grand Kempinski Hotel located in North Dallas about 20 minutes from the Dallas/Fort Worth International Airport. The hotel is a superb conference facility featuring spacious, centrally-located meeting rooms. Recreational facilities include indoor and outdoor pools, tennis and racquetball courts and a full-service health and fitness club. Complimentary transportation service is available between the conference site and nearby attractions such as the Galleria, site of some of Dallas' finest shopping.

THE WHITE HOUSE
WASHINGTON

October 22, 1991

Dear Governor Gregg:

Many thanks for your letter of October 8 concerning U.S. FIRST which arrived while I was in Japan chairing the US/Japan Joint High Level Commission.

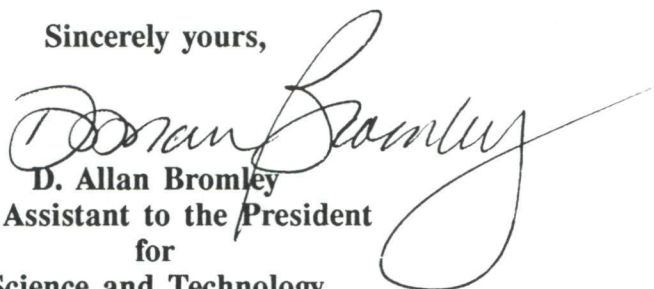
I agree with you entirely about the sterling qualities of Dean Kamen's program and will do everything I can to help it along.

It is enormously refreshing to see a young person like Dean who not only has wonderful fresh ideas, but who also has the drive, initiative, and the talent to carry these ideas through to actual programs. I have long felt that what our schools needed was a substantial infusion of American entrepreneurial spirit and Dean Kamen provides it at its best.

Many thanks for writing and for your support of this excellent program.

With all best wishes,

Sincerely yours,


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

The Honorable Judd Gregg
Governor
State of New Hampshire
Concord, New Hampshire 03301-4990

"Document Control"

TYPE: INFORMATION

ORIGINATOR: 02

STATUS C

DOCUMENT NUMBER: 9124396

DIRECTORATE STATUS

FROM: GREGG, Judd: GOVERNOR OF NEW HAMPSHIRE

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 10/08/91

SUBJECT: RE: HIS SUPPORT FOR THE U.S. FIRST PROGRAM.

DIRECTORATE
ASSIGNED: STAFF
ASSIGNED:

ACTION
REQUIRED: STAFF
ACTION:

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

COPIES TO: INTERNATIONAL/POLICY
D. Allan Bromley

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

OSTP RECEIVED: 10/15/91
FILE: P-EDUCATION

DEPT RECEIVED:



STATE OF NEW HAMPSHIRE

OFFICE OF THE GOVERNOR

RECEIVED JUDG GREGG, GOVERNOR

91 OCT 15 AM 11:32

October 8, 1991

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Science Advisor to the President
Executive Office of the White House
Washington, DC 20506

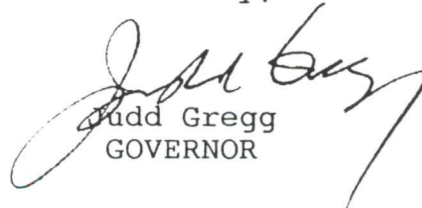
Dear Dr. Bromley:

The purpose of this letter is to express my full endorsement of U.S. FIRST, and to strongly encourage you to support the current grant request for FIRST Points that is under review in the National Science Foundation.

Having directly participated in the FIRST Points pilot program, I can attest to the excitement and the positive impact the FIRST Points program has on the school system and students that participated. The program motivates the students and inspires the teachers. It fosters a true partnership between education and business, where both sides benefit.

As a national organization, U.S. FIRST fills a critical void, beyond the FIRST Points program. By focusing on the creation of demand for science and math knowledge, it serves as a powerful ally to the school reforms and teacher training programs that are underway. Dean Kamen refers to US FIRST as the "Olympic Committee for Smarts." I think it fits and know it is needed. The faster US FIRST can bring all their programs to life, the more our schools, our students, and our society will benefit.

Sincerely,


Judd Gregg
GOVERNOR

JG:p