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Collection/Office of Origin: National Security Council
Series: Poneman, Daniel B., Files
Subseries: Subject Files

OA/ID Number: CF01349
Folder ID Number: CF01349-011

Folder Title:
OSTP [Office of Science and Technology Policy]

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

Dan: Here is the PCAST National Security Panel material. I'll come by in a day or two to discuss it. It has gone to Brady to be sent out for comment.

Regards

Charles H

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01a. Memorandum	To: Richard Barth From: Daniel Poneman Re: Comments on PCAST nonproliferation ideas (2 pp.)	12/9/91	(b)(1)	C

Collection:

Record Group: Bush Presidential Records
Office: National Security Council
Series: Poneman, Daniel B., Files
Subseries: Subject Files
WHORM Cat.:
File Location: OSTP [Office of Science and Technology Policy]

Date Closed:	1/19/2010	OA/ID Number:	CF01349-011
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

RESTRICTION CODES

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

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

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

PRM. Removed as a personal record misfile.

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

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

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01b. Memorandum	To: President Bush From: Allan Bromley Re: Report of the PCAST Panel on Science, Technology and National Security (2 pp.)	12/5/91	(b)(1)	C

Collection:

Record Group: Bush Presidential Records
Office: National Security Council
Series: Poneman, Daniel B., Files
Subseries: Subject Files
WHORM Cat.:
File Location: OSTP [Office of Science and Technology Policy]

Date Closed:	1/19/2010	OA/ID Number:	CF01349-011
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:	

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Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01c. Memorandum	To: Allan Bromley From: Panel on Science and Technology and National Security Re: Report of the Panel on Science, Technology, and National Security of the President's Council of Advisers on Science and Technology (PCAST) (22 pp.)	12/5/91	(b)(1)	C

Collection:

Record Group: Bush Presidential Records
Office: National Security Council
Series: Poneman, Daniel B., Files
Subseries: Subject Files
WHORM Cat.:
File Location: OSTP [Office of Science and Technology Policy]

Date Closed:	1/19/2010	OA/ID Number:	CF01349-011
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
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AR Case #:		MR Case #:	
AR Disposition:		MR Disposition:	
AR Disposition Date:		MR Disposition Date:	

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Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01d. Paper	Options for Presidential Action, recommendations of the PCAST Panel on Science, Technology and National Security (6 pp.)	12/5/91	(b)(1)	C

Collection:

Record Group: Bush Presidential Records
Office: National Security Council
Series: Poneman, Daniel B., Files
Subseries: Subject Files
WHORM Cat.:
File Location: OSTP [Office of Science and Technology Policy]

Date Closed:	1/19/2010	OA/ID Number:	CF01349-011
FOIA/SYS Case #:	2005-0336-F	Appeal Case #:	
Re-review Case #:		Appeal Disposition:	
P-2/P-5 Review Case #:		Disposition Date:	
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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

October 3, 1991

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: THE PANEL ON SCIENCE AND TECHNOLOGY AND
NATIONAL SECURITY CMH

SUBJECT: PROGRESS REPORT OF THE PANEL ON SCIENCE,
TECHNOLOGY, AND NATIONAL SECURITY OF THE
PRESIDENT'S COUNCIL OF ADVISERS ON SCIENCE AND
TECHNOLOGY (PCAST)

Background

The President's National Security Strategy of the United States, outlined in his Aspen, Colorado speech of August 2, 1990 identifies America's superior ability to apply science and technology as one of the cornerstones of U.S. national security. For nearly half a century, America used technological superiority to offset the numerical superiority of Soviet military power. More recently, the spectacular performance of U.S. defense and intelligence technology in Operation Desert Storm graphically demonstrated to the world American technical military superiority. On September 27, the President took the lead in reducing the threat from theatre nuclear weapons, reinforcing the need for a high technology force capable of fighting the most likely wars of the future: very rapid, very intense actions, using precision weapons with precision information under precision control, that achieve objectives rapidly with minimum loss of life or destruction. Leadership in science and technology thus made American leadership in world affairs effective at a critical juncture. Science and technology have accompanied a strong economy, democratic institutions, and favorable geography in ensuring U.S. national security.

Because of the key role science and technology have played in U.S. national security, the Assistant to the President for Science and Technology in consultation with the Assistant to the President for National Security Affairs has convened a Panel on Science, Technology, and National Security of the PCAST to assist him in advising the President on policy issues related to science and technology and the national security interests and objectives of the United States.

In its deliberations to date, the Panel has concluded that science and technology will be even more important to U.S. national security in the future than it has been in the past:

- Understanding the dramatically changing world will require quality intelligence, which will depend on innovative technologies for collection, processing, analysis and dissemination of information. Moreover, assessment of important emerging intelligence problems related to proliferation, conversion of Soviet defense industries, and economic issues will require technical expertise to aid intelligence analysis.

- Technology will be needed to compensate for shrinking defense budgets, making America's smaller military forces more effective.
- Advances in technology will contribute to shortening future wars while causing fewer casualties (friendly and hostile), and thus will help to create politically practical military options for the President.
- An innovative science and technology base can help the nation hedge against an uncertain future, since it will contribute to the creation of a wider range of future security options from which the nation can choose as new threats develop.

Discussion

America enjoys scientific and technological leadership today because of the large investments made over the past decades. But the Panel is concerned that, looking to the future, continued American superiority in national security science and technology is not automatic and can only be assured through deliberate government action. The reasons for this caution are:

- Science and technology are advancing rapidly and other nations are competing with America for broad scientific and general technological leadership. Therefore, America's lead is inherently perishable.
- Smaller defense budgets and a more varied and uncertain set of threats to U.S. security call for new and innovative methods of applying technology: some of the methods and institutions used to counter the Warsaw Pact threat to Europe may not be suited to the national security challenges of the new world.
- Important technology of national security significance increasingly originates in commercial firms and in foreign nations as well as in U.S. defense laboratories.
- High-tech weapons, and weapons of mass destruction, are falling into the hands of potential opponents.
- The government's methods of creating and applying technology, and of procuring high-technology systems, have become inefficient.

Together, these factors present a strong challenge to the continuing technological lead called for in the President's National Security Strategy.

The Panel has the task of devising policy options that will provide to future presidents as wide a lead in defense and intelligence technology as America enjoys today. In its preliminary deliberations, the Panel has identified six critical areas for priority attention:

1. Science and Technology's Contribution to Intelligence in the New World Order. Collecting intelligence through state-of-the-art technical means has been a unique American national security advantage. Issues for the future identified by the Panel include protecting this intelligence technology lead in the face of budget reductions, exploiting new opportunities for satellite and airborne wide-area surveillance, applying leading edge technologies to intelligence analysis, developing technically talented personnel in the intelligence community, improving intelligence support for military operations, especially "near real time" tactical intelligence, improving counter intelligence and the protection of sensitive technologies, and selectively sharing the intelligence burden and product with friendly nations.

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and
2. Integrated Systems Approach to Non-Proliferation. The Panel believes that however strong the pace of American advance in defense science and technology, our security can be eroded by the proliferation of advanced weaponry to potential adversaries. In addition, proliferation of high technology weapons may make conflicts more likely. An integrated systems approach that combines use of technical, economic, military, political and financial information with unilateral, bilateral or multilateral political actions would allow major improvements in our ability to restrain high tech weapons proliferation. Such an approach to the proliferation threat is a major international undertaking requiring American leadership. Such an undertaking can be assisted by the international action to force responsible behavior in Iraq; by new possibilities for cooperation among the U.N. Permanent Five after the cold war; in the examples of multinational agreement to limit armaments and of intrusive verification set in CFE, the chemical biological weapons conventions; and by INF and START; in the strong position of the United States to take a leadership role after its cold war and Desert Storm victories; and, in the clear example provided by Saddam Hussein's Iraq of the failure of past piecemeal approaches and of the potential price of failure to contain future proliferation. ?

The Panel believes that any such approach will require major contributions from science and technology. Assessing the threat, tracking world trends in technology, obtaining and assessing intelligence, and devising methods of inspection and verification will require technical as well as political, military and economic expertise. Moreover, this approach will require combining the expertise in Defense, State, Commerce, Energy, the Intelligence Community, and other involved agencies and thus would inevitably require White House guidance. The Panel will therefore be exploring innovative technical and policy options for the President that would implement such an approach.

3. New Approaches to the Application of Science and Technology by Government. For more than decade, a host of reports like that of the "Packard Commission" have decried government's inability to develop and procure high-technology systems efficiently. Today two new factors add to the urgency of solving the problem. First, American industry is adopting entirely new modes of developing technology in order to compete with foreign firms, and these new modes make the barriers between "the government's way" and industry's way even harder to surmount. Second, the reorientation of U.S. national security strategy to a new and more uncertain family of potential threats creates the need for a more agile and more diverse science and technology effort for national security. In this period of declining budgets inefficiencies cannot be tolerated.

Since many of the barriers to efficiency arise from government-wide regulations and from Congressional oversight, the several departments and agencies that deal with national security, and which generally recognize the problems, need Presidential help to solve them. The Panel is assessing in particular: some experimental streamlined approaches between government and the nation's leading high-tech defense and commercial industries, the proper allocation of defence budget cuts within the national security establishment, and the paramount need to induce technically qualified people to serve in government.

4. Attracting technically qualified people to serve in sensitive national security posts. The Panel believes that no combination of policy initiatives will succeed in preserving the technological lead called for in the National Security Strategy unless the President regains the ability to attract the best technical personnel to serve in his

administration. When the nation responded to the Soviet Union's Sputnik launch in 1957, a generation of America's finest scientists and engineers involved themselves in the solution to that era's national security problems. But now, Cabinet officers testify regularly to the great difficulty they encounter today in recruiting qualified technical executives, and the Panel believes that the difficulty to attract top talent to key jobs is the single most significant impediment to fulfillment of the science and technology component of the President's national security strategy.

5. A New Emphasis on Selected Defensive Systems. The President's National Security Strategy emphasizes the need to reorient defense planning to regional contingencies. Regional contingencies like Desert Storm involve projecting U.S. striking power overseas quickly, with decisive effect, and with minimal casualties to both friendly and hostile forces. Such striking power is clearly the highest priority for the U.S. military in the next decade. But looking further into the future, the Panel is concerned that the United States and its citizens will increasingly come under direct physical threat from other nations. These threats to U.S. citizens abroad, to U.S. forces abroad, to U.S. allies and friends, and eventually to the United States itself will require a new technology emphasis on defensive systems in addition to long-range projection of striking power. Since technology exploration today is needed to prepare deployment options a decade hence, the Panel believes that national security technology efforts should reflect a new emphasis on selected defensive systems, including biological warfare defenses, counter-terrorism, counter-mine and anti-diesel submarine warfare, coalition defense of allies, and defenses against theater and intercontinental missiles.

6. Enunciating a technology strategy for superiority. Finally, the Panel believes that the science and technology component of our national security strategy will not receive adequate attention unless the President enunciates his policy for this area clearly to the departments and agencies of the government and unless an integrated plan and its implementation is overseen by a coordinated effort of the NSC, OSTP, and OMB. White House effort is needed to enforce adequate budget emphasis on preserving our science and technology edge, to harmonize the defense science and technology effort with other such federal efforts and with commercial industry's efforts for maximum overall national benefit, and to catalyze efforts in new sciences and technologies that have potentially revolutionary impacts on national security.

Conclusion

The Panel will be preparing specific policy options for its final report to Dr. Bromley in December.

DISTRIBUTION:

**D. Allan Bromley
Thomas J. Welch
Kenneth P. Yale
Solomon J. Buchsbaum
John S. Foster, Jr.**