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Committee for National Security Meeting, 03/31/98

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NSTC COMMITTEE ON NATIONAL SECURITY

Minutes -- Meeting of March 31, 1998

The Committee for National Security (CNS) held its sixteenth meeting on March 31, 1998. The principals who attended are listed at Attachment 1. The primary purpose of the meeting was twofold: (1) to discuss the work plan for the new Critical Infrastructure Protection R&D Interagency Working Group and (2) to consider the approach taken by the International Technology Transfer Issues and Policy Interagency Working Group to perform the selected case studies. The meeting agenda is shown at Attachment 2.

I. INTRODUCTION

Dr. Kerri-Ann Jones opened the meeting.

II. CURRENT EFFORTS

A. Critical Infrastructure Protection

Dr. Jones introduced the subject and pointed out that although the Presidential Decision Directive (PDD) on critical infrastructure protection had not yet been signed, the Critical Infrastructure Protection R&D Interagency Working Group (CIP IWG) held its first meeting on March 25. She introduced Dr. Steve Rinaldi of the Office of Science and Technology Policy (OSTP), who presented the work plan for the group.

Dr. Rinaldi indicated that the group had four major actions to accomplish in the next 6 months, or more precisely, within 180 days after the PDD is signed, in order to complete an R&D agenda and forward it, as part of a national critical infrastructure protection program, to the President through the principals.

- *Identify current R&D programs.* The goal is to accomplish this task in one month. The IWG will build on an ongoing Department of Justice study on counterterrorism activities and an OMB survey, completed in January, of existing agency infrastructure protection R&D.

- *Identify R&D needs and gaps.* This task should be accomplished within two months. One of the CNS principals asked whether the IWG included system integration in R&D, or whether it limited itself to more traditional R&D. Dr. Rinaldi responded that the IWG is avoiding the traditional stovepipe look at R&D and is including system integration. He described infrastructure as a collection of manmade systems and processes that work on the creation and distribution of goods. A *critical infrastructure* was defined by the President's Commission on Critical Infrastructure Protection (PCCIP) as an infrastructure whose destruction or incapacitation would produce grave national and economic security consequences. The commission identified eight infrastructures that met this criterion, including electricity, oil and natural gas production and storage, transportation, banking and finance. The IWG will take a broad look at the infrastructures identified by the PCCIP, and its R&D agenda will consider private sector and academic R&D.

- *Develop an R&D agenda for submission to the President.* As called for in the PDD, the report to the President will include a critical infrastructure protection R&D agenda that will require interagency coordination. The draft report should be completed within four months.
- *Track budgets.* The IWG will work with OMB and the agencies to identify and track RDT&E funding levels for critical infrastructure protection. The IWG will act as a clearinghouse and build on similar efforts by DOJ, OMB and others.

Dr. Jones asked that each principal ensure that his or her representatives participate in the IWG .

B. International Technology Transfer

Dr. Jones reminded the committee that it tasked the International Technology Transfer Issues and Policy IWG to examine case studies with international technology transfer issues at the December CNS meeting. The IWG developed ten candidate cases, each with its own sensitivities, so the committee principals were asked to vote for their preferred cases. There were two clear winners: Federal Laboratory International Technology Transfer Policies and Civil Communications Satellites. The IWG will examine these two cases in its study.

Dr. Jones introduced Dr. Gerald Hane, who discussed the current activities of the group. He identified the ten candidate cases that the IWG considered and highlighted the two cases the principals selected. The IWG is focusing on the processes used to manage national security and economic security in international technology transfer in each case, and it will not revisit the decisions that have been made. In the Federal Laboratory International Technology Transfer Policies case, the IWG is focusing on practices that worked well and lessons learned (e.g., a best-practices approach). Currently, the IWG only has preliminary data. Next week agency experts will present briefings on the strengths and commonalities of technology transfer processes in the Federal Laboratory case.

In the Civil Communications Satellites case, the IWG will look at the process that led to the Presidential decision in March 1996. The National Security Council had the lead in negotiating the issues to transfer jurisdiction over civil satellite exports from the Department of State to the Department of Commerce. The process for implementing the policy was also instructive. The Department of Commerce is leading the effort to develop a draft outline of the case. The draft should be out next week for agency review.

Mr. Reinsch proposed that the IWG consider the remaining cases on the list when it finishes the two initial cases, pointing out that the purpose of the study is to examine how technology transfers have been accomplished in the past so that a better process can be established for future decisions. The principals agreed that the group would complete the two preferred cases before a decision is made on future case studies.

Dr. Jones briefed the principals on two ongoing congressional activities related to technology transfer:

- Senators Joseph Lieberman and Jay Rockefeller sent a letter to Vice President Gore, Dr. John Gibbons, and Mr. Gene Sperling (Attachment 3) expressing concern with management of international technology transfer, in particular the DOE lithography CRADA. The Senators asked OSTP to conduct a review of these issues with involved agencies. The draft reply, currently being coordinated, indicates that the CNS

International Technology Transfer Issues and Policy IWG is examining these issues. A copy of the final reply, expected by the end of the week, will be provided to each principal.

- On March 26, in the hearings on the Technology Transfer Commercialization Act in the Technology Subcommittee of the House Committee on Science, Representative Tauscher indicated that she planned to add an amendment to the bill tasking the OSTP to conduct a review of the CRADA review process. The text of that amendment had not been released at the time of the CNS meeting.

III. OTHER BUSINESS

A. FY00 R&D Budget Priorities

Dr. Jones pointed out that each year the heads of OMB and OSTP release a joint memorandum discussing the science and technology (S&T) priorities for the upcoming budget cycle. This year's memorandum will provide specific guidance, and OMB will likely check to ensure that agencies have followed the guidance during its agency budget reviews. This year, there will be two categories of guidance. The first category will be for formal budget crosscuts on specific topics. OMB has proposed criteria for the crosscut process (Attachment 4) that will require more work than in the past. Dr. Jones had considered including critical infrastructure protection in the joint memorandum for the crosscut, but in view of the OMB criteria, she felt that it would be premature to include it as a crosscut at this time. Since these criteria are not yet firm, she asked for the committee's comments on the criteria and whether the critical infrastructure working group was mature enough to handle the task. There was general agreement that the proposed criteria would impose a heavy burden on affected departments and agencies and that critical infrastructure should not be on the list of formal crosscuts.

The second category is for special emphasis programs. For topics in this category, departments and agencies would be asked how much is being spent in each area. Dr. Jones proposed placing critical infrastructure in this category. This would give the working group time to get some work done. There was general agreement with her proposal.

B. Humanitarian Demining R&D

Dr. Jones proposed that CNS establish an Ad Hoc Interagency Working Group on Research and Development for Humanitarian Demining to develop a strategic agenda or strategy document on humanitarian demining R&D. The draft terms of reference for the working group describe the steps necessary to develop a strategy document. There is an existing interagency working group chaired by the Department of State that focuses on demining operations, and this working group has an R&D subgroup. In view of the increased national and international interest in demining R&D, it would be worthwhile having a group develop a simple document describing ongoing demining R&D activities. Dr. Gansler noted that essentially all of the R&D is being done by DoD. In his view, the problem lies in the business aspect of demining, not the R&D itself. Items are developed, but none are purchased for humanitarian demining. He had Dr. Foster chair a Defense Science Board Task Force to examine this issue. The Task Force concluded that the problem is not technology limited, but resource limited. He believes there are great ideas being developed but are not being funded as a business. Dr. Jones recognized that demining R&D is largely a single agency program, but that a short-term ad hoc group might provide useful visibility to the R&D program. Dr. Gansler noted that Ms. Sheri

Goodman has the responsibility in DoD of integrating concepts for mine clearing from the DOE laboratories and other agencies. It was agreed that Dr. Jones would call a meeting at OSTP with Ms. Goodman and other interested parties to examine strategy and agendas, discuss DoD activities, and explore needs.

IV. CLOSING REMARKS

Dr. Jones adjourned the meeting.

Dr. Jacques Gansler, Chair (date)

Kerri-Ann Jones 6/8/98.

Dr. Kerri-Ann Jones, Co-Chair (date)

Attachments:

1. List of Principals attending
2. Meeting agenda
3. Letter from Senators Lieberman and Rockefeller
4. OMB Crosscuts

**Principals Attending Meeting of Committee for National Security
March 31, 1998**

Dr. Jacques Gansler, Chair	Under Secretary of Defense for Acquisition and Technology
Dr. Kerri-Ann Jones, Co-Chair	Associate Director, National Security and International Affairs, Office of Science & Technology Policy
Mr. William Reinsch	Under Secretary of Commerce for Export Administration
Dr. Ruth David	Deputy Director, Science and Technology, CIA
Ambassador Ralph Earle II	Deputy Director, Arms Control & Disarmament Agency
Mr. James Devine	Senior Advisor for Science Applications, U.S. Geological Survey, Department of the Interior

Attachment 1

DRAFT

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: JOHN H. GIBBONS AND FRANKLIN D. RAINES

SUBJECT: FY 2000 Research and Development Priorities

Through the National Science and Technology Council (NSTC), Federal agencies and departments have identified a set of priority research areas that are important national efforts requiring investments across agencies. As with all research and development (R&D) investments, these interagency priority areas should reflect our objectives of maintaining excellence, maximizing effectiveness, and minimizing costs.

Principles?????

Five interagency R&D areas we identify as priorities in the FY 2000 budget are listed below. Agencies and departments should be prepared to demonstrate their commitment to these priorities, if relevant to their missions, as part of their budget discussions with and FY 2000 budget requests to the Office of Management and Budget (OMB), and responses to the Government Performance and Results Act (GPRA). The definitions of these five crosscuts and how these data are to be submitted to OMB are outlined in OMB's Circular A-11. A revised version of A-11 should be available in early Summer, 1998. The five cross-cutting R&D areas are:

1. U.S. Global Change Research Program
2. High Performance Computing and Communications (including NGI)
3. Partnership for a New Generation of Vehicles
4. Education Research and Technology???

5. Climate Change Technology Initiative??? (Linkage to PNGV???)
6. Aviation Safety???

While most of these programs are ongoing, in the preparation of the FY 2000 budget we are promoting more uniform management and accounting to enhance the benefits of interagency coordination. Specifically, each interagency program must include the following:

1. Concise, GPRA-compliant program goals and performance measures, finalized no later than September, 1998.
2. A program implementation plan outlining specific agency activities and budgets, and the linkages between them. Agency activities should be tied clearly to overall program goals and performance measures. Implementation plans should be finalized no later than September, 1998.

3. Interagency implementation plans should include a certification that all agencies involved in the crosscut have reviewed each other's projects, and that these projects directly contribute to the goals and objectives of the crosscut.
4. September, 1998, budget hearing with OSTP and OMB staff.
5. Supplement to the President's budget, to be released to the public no later than mid April.

Crosscutting GPRA measurements for R&D???

We will work with you in the coming months through the NSTC to ensure that each interagency program achieves these results.

Crosscuts

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1. Concise, GPRA-compliant program goals and performance measures, finalized no later than September 1998.
2. A program implementation plan outlining specific agency activities and budgets, and the linkages between them. Agency activities should be tied clearly to overall program goals and performance measures. Implementation plans should be finalized no later than September 1998.
3. Interagency implementation plans should include a certification that all agencies involved in the crosscut have reviewed each other's projects, and that these projects directly contribute to the goals and objectives of the crosscut.
4. September 1998, budget hearing with OSTP and OMB staff.
5. Supplement to the President's budget, to be released to the public no later than mid-April.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

Copy. KAJ's package.

March 30, 1998

MEMORANDUM FOR KERRI-ANN JONES

FROM: STEVE RINALDI *SR*

SUBJECT: Committee on National Security Meeting - March 31

You will co-chair the Committee on National Security (CNS) meeting on March 31 at 3:00 p.m. in Room 3D1019 of the Pentagon. This package will help prepare you for the meeting. It consists of the following sections:

1. Tab 1: Meeting announcement and agenda
2. Tab 2: Information on the Critical Infrastructure Protection R&D Interagency Working Group. The tab consists of talking points and the draft terms of reference for the working group.
3. Tab 3: Information on the International Technology Transfer Working Group. The tab consists of talking points and the viewgraphs that Gerald Hane will present during the meeting.
4. Tab 4: Information on the Ad-hoc Interagency Working Group on Research and Development for Humanitarian Demining. The tab consists of talking points and the draft terms of reference for the working group.

Should you need further information on any of these subjects, I will be happy to provide it to you.

Attachments



OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING
3040 DEFENSE PENTAGON
WASHINGTON, D C. 20301-3040

CC: KAJ
SR ✓
GH
JE

March 26, 1998

MEMORANDUM FOR MEMBERS OF THE NATIONAL SCIENCE AND TECHNOLOGY
COUNCIL COMMITTEE ON NATIONAL SECURITY

SUBJECT: Committee on National Security Meeting on March 31, 1998

The next meeting of the Committee on National Security (CNS) will be held on Tuesday, March 31, 1998, from 3:00-4:30 PM in Room 3D1019, the Pentagon. The classification of the meeting will be Secret. We will coordinate with your office if we do not have your clearance on file.

The meeting agenda and read-ahead material are enclosed. The read-ahead material consists of the draft Terms of Reference (TOR) for the Critical Infrastructure Protection Interagency Working Group (IWG) and the draft TOR for a proposed Ad Hoc IWG on Research and Development for Humanitarian Demining, as well as briefing charts and a summary table pertinent to the International Technology Transfer IWG. There is no read-ahead material for the agenda topic on FY00 R&D Budget Priorities.

We look forward to having you join us on March 31, 1998. I can be reached at (703) 695-9602 if you have any questions.

Clarence W. Kitchens, Jr.
Executive Secretary
Committee on National Security

Enclosures



DISTRIBUTION:

Dr. Jacques Gansler, Under Secretary of Defense for Acquisition & Technology
Dr. Kerri-Ann Jones, Associate Director National Security & International Affairs, Office
of Science & Technology Policy
Mr. William Reinsch, Under Secretary of Commerce for Export Administration
Mr. Gary Bachula, Under Secretary of Commerce for Technology Administration
Dr. Ruth David, Deputy Director for Science & Technology, CIA
Mr. David Morrison, Office of Management and Budget
GEN John R. Dailey, Acting Deputy Administrator, NASA
Mr. John Barker, Deputy Secretary for Export Control, DoS
Dr. Miley Gonzalez, Department of Agriculture
Mr. Robert Knouss, Director, OEP, Department of Health & Human Services
VADM Paul Pluta, Department of Transportation
Ms. Rose Gottemoeller, Director, Office of Nonproliferation & National Security,
Department of Energy
Mr. Robert A. Eisenstein, Assistant Director for Math & Physical Sciences,
National Science Foundation
Ambassador Ralph Earle, II, Deputy Director, Arms Control & Disarmament Agency
Mr. Robert G. Bell, National Security Council
Mr. James F. Devine, Department of the Interior
Mr. Leon Fuerth, National Security Advisor for the Vice President
Mr. Gary Samore, Nonproliferation and Export Control
Mr. Nicholas Flager, Department of Commerce
Capt. Joe Buchard, Defense Policy & Arms Control, National Security Council
Mr. Tom Falvery, Department of Transportation

Agenda for the Meeting of the
NSTC COMMITTEE ON NATIONAL SECURITY

March 31, 1998
3:00-4:30 PM
Pentagon, Room 3D1019

I. INTRODUCTION

II. STATUS OF CURRENT EFFORTS

- Critical Infrastructure Protection
- International Technology Transfer

III. OTHER BUSINESS

- Humanitarian Demining R&D
- FY00 R&D Budget Priorities

IV. CLOSING REMARKS

TALKING POINTS

Critical Infrastructure Protection R&D Interagency Working Group

- During the interagency review of the recommendations by the President's Commission on Critical Infrastructure Protection, OSTP proposed and advocated the establishment of a new working group under the CNS and Committee on Technology (CT) to develop R&D policy and agendas, monitor programs, and track budgets.
 - At our December CNS meeting, we endorsed this proposal. The CT likewise gave its support to the proposal.
 - The interagency review team accepted this proposal and it has been incorporated into PDD-YY, "Critical Infrastructure Protection."
- The working group held its first meeting on March 25. Duncan Moore, White House Co-Chair of the Committee on Technology, and I addressed the working group.
 - We stressed the importance of the task before the working group.
- This new IWG will have an aggressive work schedule, with a number of important tasks.
 - PDD-YY specifies that within 180 days of its signature, federal R&D spending on infrastructure protection shall be coordinated, subject to multi-year planning and taking into account private sector research.
 - FY00 budget cycle considerations and timing will also drive the IWG.
 - The working group will be meeting weekly for the next several months as it addresses the tasks before it.
- There are a number of key next steps for the working group to address:
 - Existing R&D programs. The group will need to identify current and projected R&D programs. *1 MAY*
 - R&D needs and gaps. Using existing studies of R&D needs (PCCIP, Argonne, etc.) and the current R&D program, the group will need to identify R&D gaps that should be addressed. *31 MAY*
 - R&D agenda. The working group will need to develop a plan forward -- a roadmap -- for the federal R&D program, drawing on recommendations of the Commission and other studies.
 - Budget tracking. The working group will need to identify and track funding levels, based upon the work already performed by OMB. *Quarterly meet?*
- I urge you to strongly support the activities of your representatives on this working group. We are in the ideal position of being able to develop the R&D agenda for this issue, which cuts across both national and economic security. Given the interest this issue has garnered, the working group should be able to make a significant impact in the very near term to the government's infrastructure protection program.

**National Science and Technology Council
Committee on National Security
Committee on Technology**

**Terms of Reference for the
Interagency Working Group on Critical Infrastructure Protection**

Goal

The goal of the Interagency Working Group (IWG) is to define, develop, and monitor critical infrastructure protection (CIP) research and development agendas, policy, and programs for the Federal government.

Scope

The IWG will address Federal government research and development programs that are applicable to the protection of the nation's critical infrastructures. In particular, the IWG will foster collaborative multi-agency R&D initiatives among Federal departments and agencies.

Organization

- The IWG will operate jointly under the NSTC's Committee on National Security and Committee on Technology.
- The IWG will be co-chaired by the Office of Science and Technology Policy and [organization to be decided]. Membership includes but is not limited to the Department of State, the Department of Defense, the Department of Treasury, the Department of Justice, the Department of the Interior, the Department of Agriculture, the Department of Commerce, the Department of Labor, the Department of Health and Human Services, the Department of Transportation, the Department of Energy, the Office of Management and Budget, the National Aeronautics and Space Administration, the National Science Foundation, the Central Intelligence Agency, the Arms Control and Disarmament Agency, the Environmental Protection Agency, the Federal Emergency Management Agency, the National Security Council, the National Economic Council and the Office of Science and Technology Policy.
- The IWG will meet weekly to develop a critical infrastructure protection R&D agenda and associated policy, and thereafter bi-weekly to monitor and coordinate the implementation of the agenda and policy.

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March 6, 1998

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- Intra- and interagency coordination will also occur between formal, scheduled IWG meetings.

Activities

The activities of the IWG will include, but not be limited to, the following:

- Coordinating the appropriate Federal government entities to identify relevant long-term R&D objectives. The CIP Working Group will ensure that there are consistent, detailed, and comprehensive communications among the government, private sector, and academia in addressing existing and long-term R&D requirements and programs.
- Drafting infrastructure assurance R&D policy. The National Science and Technology Council (NSTC) shall review all R&D policy.
- Developing and updating as necessary a long-term R&D agenda that addresses current and emerging infrastructure protection requirements. The agenda should leverage related R&D investment agendas and programs of other departments and agencies and the private sector to the degree possible. The agenda should make projections of long-term budget requirements.
- Developing and reporting a fully coordinated infrastructure protection R&D program to the NSTC. This program will be updated annually. Key activities will include:
 - Comparing infrastructure protection R&D needs to current R&D programs and identifying gaps.
 - Coordinating the progress of ongoing infrastructure protection R&D programs.
 - Identifying programs to meet needs, including the augmentation of existing programs when deemed necessary.
 - Prioritizing and sequencing specific R&D programs to address critical needs.
 - Determining funding needed to execute the overall R&D program.
 - Identifying Federal investment levels for ongoing critical infrastructure protection R&D.
- Monitor other ongoing studies of CIP R&D needs, CIP R&D agendas, and infrastructure vulnerabilities; ensure the timely distribution of appropriate studies to government entities; and incorporate recommendations from such studies as necessary and warranted.

Schedule

- By May 1, 1998, the IWG will identify all ongoing Federal critical infrastructure protection R&D programs.

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- By July 30, 1998, the IWG will develop and deliver to the Committee on National Security and the Committee on Technology a draft Federal government critical infrastructure protection R&D agenda and policy.

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March 6, 1998

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TALKING POINTS

International Technology Transfer Working Group

- At the December CNS meeting, we asked the International Technology Transfer Working Group to address processes that could improve the coordination and cooperation between agencies on issues of international technology transfer. Specifically, we asked the group to examine several cases to draw lessons learned and determine if process improvements could be made.
- The IWG looked at several example cases, but was unable to determine a set of cases that had the clear support of the CNS principals. As a result, the IWG developed 10 potential cases for study. The CNS principals voted for their preferences.
- The IWG is studying the two cases that were the “clear winners” in the voting process: Federal laboratory international technology transfer processes and policies, and commercial satellite export controls.
- Case 1: Federal laboratory international technology transfer processes and policies. The IWG has started developing information on existing procedures for technology transfer that are in place in the laboratories. The objectives of this case include:
 - Determining and developing descriptions of some “best practices” in this area that can be shared among the laboratories.
 - Determining guidance and management processes that the labs have put in place.
- Case 2: Commercial satellite export controls.
 - The concern in this case was the treatment of embedded technologies, such as encrypted software. The decision at the time was that satellites for civilian uses would be handled as dual-use items even if embedded components were more strictly export controlled. However, this appears to be an issue of ongoing concern.
 - The IWG has just begun to examine this case.
- Gerald Hane has a short presentation on the status of the IWG’s activities.

CNS International Technology Transfer IWG

- Case studies--candidates and subjects selected
- Status -- Federal laboratory international technology transfer policies
- Status -- Commercial satellite export controls
- Next steps
-
-

Candidate Cases



- International participation in SEMATECH
- Coproduction of the M109 Howitzer
- Night vision goggle image intensifiers
- Rocket casing manufacturing
- Partnership for a New Generation of Vehicles
- Hot section export controls
- **Civil communications satellites**
- Supercomputer export controls
- Third party licensing
- **Federal laboratory technology transfer policies**

Next Steps



- Briefing by agency tech transfer specialists
- Identification of strengths and commonalities in tech transfer processes
- Complete civil satellite case study
- Respond to other directives of CNS principals

FEDERAL LABORATORY INTERNATIONAL TECHNOLOGY TRANSFER PROCEDURES
SUMMARY TABLE
(FORMAT PROVIDED BELOW FOR COMMENT BY CNS PRINCIPALS)

	DOD	DOC	DOE	NASA
Type of Technology Transfer System - CRADA, other				
Legal/Administrative Basis for Cooperation				
Formal/Informal Process in Place - Standing review/ad hoc				
Process Checkpoints				
- Parameters are considered				
- Key participants				
- Time lines				
- Third party retransfer conditions				
Comments				

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Talking Points: Proposal to Establish Ad-hoc Working Group on Humanitarian Demining

- I have proposed to establish an ad-hoc working group under CNS to produce a strategy for humanitarian demining research and development.
- As stated in the draft terms of reference that was circulated in the read-ahead package, this group will produce a report that provides a roadmap for the successful development and deployment of improved demining equipment
- As many of you know, there is already an existing Interagency Working Group, chaired by Mike Lemmon at the State Department, that oversees US government demining efforts. This group primarily addresses demining operations, and spends very little time directly on R&D.
- This IWG did have a sub-IWG that addressed R&D issues. However, with the increased attention and visibility now being given to humanitarian demining -- not only in the White House, but in the agencies as well -- I believe it is appropriate to focus additional attention on this subject and to elevate the level within agencies at which it is addressed. Although the mission of conducting demining R&D has been given to DoD -- and within DoD, to SO/LIC -- there is clearly interagency interest in this issue. This interagency involvement, the level of White House interest, and the importance of R&D to meeting our national goals in demining all make this an appropriate topic for NSTC - and in particular, for CNS.
- My office has discussed this proposal with NSC, State, and DoD, all of whom have supported establishing this group. There were some concerns that we not create another standing group, so we have made clear in the Terms of Reference that this group will disband once a strategy or agenda has been produced. CNS would, of course, be free in the future to ask a new group to see whether the strategy that this group produces needs updating.

[FYI: LAST FRIDAY, JERRY WAS TOLD THAT ASSISTANT SECRETARY FOR SPECIAL OPERATIONS AND LOW-INTENSITY CONFLICTY ALLEN HOLMES, WHO IS RESPONSIBLE FOR DEMINING R&D, SUPPORTS -- OR AT LEAST DOES NOT OPPOSE -- THIS GROUP. JERRY UNDERSTANDS THERE WERE SOME CONCERNS ABOUT THE GROUP -- ABOUT CREATING A NEW STANDING GROUP, AND ABOUT BLURRING WHAT WAS THOUGHT TO BE A CLEAR DELEGATION OF AUTHORITY TO SO/LIC TO CONDUCT DEMINING R&D. HOWEVER, HOLMES HAS APPARENTLY BEEN PERSUADED THAT THE PRODUCT THE GROUP WILL PRODUCE WILL BE A USEFUL ONE. JERRY UNDERSTANDS THAT HAVING SO/LIC CO-CHAIR THE WORKING GROUP WAS IMPORTANT TO THIS OUTCOME.]

- There is no implication that our present R&D agenda is off the mark. However, everyone we checked with in the USG believed that that it would be valuable to produce a concise and accessible document that sets out the objectives of our demining R&D, inventories the many activities within the USG that are working towards these objectives, and lays out the balances that need to be struck in designing our R&D agenda: for example, between near-term and far-term R&D, between low-risk and high-risk approaches, between international

collaboration and domestic unilateral activities (to the extent that the two are in opposition). It is possible that once we explicitly lay out our objectives, assumptions, and progress to date, we may collectively decide to make some changes in our demining R&D strategy. But no such outcome has been presumed.

- The draft Terms of Reference identifies "minimum membership" for the IWG -- this is not meant to be exclusive. Representatives from any CNS agency who are willing to contribute are more than welcome to participate.
- Assuming we approve this, Jerry Epstein will be in contact with representatives from your agencies to schedule working group meetings.

Q's and A's:

Q: Why can't this task be left for the R&D subgroup of the existing demining R&D?

A:

- Rick Inderfurth, Special Representative of the President for Humanitarian Demining, and I see a number of benefits from developing a plan that lays out the entire USG demining R&D effort, including -- but not limited to -- the DoD program explicitly devoted to humanitarian demining R&D.
- The Committee for National Security of the NSTC has high-level representation from a broad set of federal agencies. *[i.e., broader and higher than that of the existing R&D subgroup of the demining IWG].*
- The demining IWG concentrates on overseeing demining operations, and had R&D only as a minor focus. This proposed NSTC IWG will concentrate solely on the research and development aspects of demining.
- There are several R&D activities in DoD ***besides*** SO/LIC's Humanitarian Demining program that are nevertheless highly relevant to the humanitarian demining mission. It is very important to engage DoD at a level that encompasses all of these programs.
- There is also relevant work that is or could be done in agencies not represented in the existing demining IWG, such as DOE and possibly FAA and NASA. *[NOTE: FAA and NASA work could be relevant, but it is a bit of a stretch. I would not emphasize their contribution.]*
- Finally, there is direct Presidential interest in demining R&D-- every time the President's Science Advisor, Jack Gibbons, sent a memo to the President that even mentions demining R&D, the memo comes back with that section underlined or with a note in the margin from the President himself.

Q: What is the relationship between this new group and the Global Humanitarian Demining 2010 Initiative office?

A:

- We have been working with the GHD 2010 office in setting up this group, and I discussed this idea some time ago with Rick Inderfurth. He was quite supportive. Both we at OSTP and the GHD 2010 office believe that the strategy that this group would produce will be a very useful document in presenting the program and in enlisting international cooperation in R&D.
- I hope and expect that the GHD 2010 office will participate on the working group, although the extent of State Department representation on the group is up to the State Department -- and in particular, its CNS representative.
- RP Eddy, from the GHD 2010 office, is here if there are any questions on that office's functioning or role.

- > Get list of CVS attendees at the meeting.
- > Transportation arrangements?

**National Science and Technology Council
Committee for National Security**

Goal

Scope

- ## Organization

- The working group will operate under the NSTC's Committee for National Security, which is co-chaired by the Associate Director of OSTP for National Security and International Affairs and the Undersecretary of Defense for Acquisition and Technology.
- The working group will be co-chaired by the Senior Policy Analyst, National Security in the Office of Science and Technology Policy and the Director for Requirements, Technology, and Acquisition in the Office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict. Minimum membership will include the Department of Defense, Department of Energy, Department of State, the Central Intelligence Agency, and the National Security Council.
- The working group shall deliver a draft for review and approval by the Committee for National Security by July 31, 1998, with publication scheduled for October 30, 1998.
- The Working Group will disband upon acceptance of the report by the Committee for National Security.

DRAFT

March 18, 1998

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NSTC COMMITTEE FOR NATIONAL SECURITY

Minutes -- Meeting of December 15, 1997

The Committee for National Security (CNS) held its fifteenth meeting on December 15, 1997. The Principals who attended are listed at Attachment 1. The primary purposes of the meeting were to discuss options proposed by the CNS Working Group on International Technology Transfer Issues and Policy, provide guidance to the group on their future direction and discuss possible new activities related to critical infrastructure protection. The meeting agenda is shown at Attachment 2.

I. INTRODUCTION

Dr. Kerri-Ann Jones introduced her co-chair, Dr. Jacques Gansler, the Under Secretary of Defense for Acquisition and Technology, who was attending his first meeting of the CNS.

II. CURRENT EFFORTS

A. International Technology Transfer Working Group

Dr. Jones introduced the subject and pointed out that international technology transfer is a complicated area, that the problem needs to be better defined, and that the group needs clear marching orders. She then introduced Dr. Steve Rinaldi of OSTP, who presented the progress report of the CNS Working Group on International Technology Transfer Issues and Policy.

Dr. Rinaldi went through the progress report, which had been included in the read-ahead package for the meeting. The working group focused its activities on evaluating existing data on and studies of technology transfer and interfaces with industry. The working group met with eight different groups as part of its review of currently existing data on technology transfer. One of the problems the group encountered was defining "critical technology," a term for which it found three different definitions. Although a considerable amount of statistical data and studies are available, these resources are not widely disseminated, and key decision makers and their staffs might not be aware of them. Furthermore, important interfaces with industry might be unknown and thus overlooked during policy deliberations. The working group contacted the Industrial College of the Armed Forces (ICAF) concerning ICAF's participation in this study. ICAF expressed interest in possible student projects, contingent on student interest, but the projects would have to be scheduled over a 6- to 12-month period to fit the academic year. The working group recommended that its focus in the next quarter be on tasks 8 (characterize benefits and risks of technology transfer) and 9 (identify effects current mechanisms have on technology import). The long-term activities should examine tasks 6 (interagency issues and differences on technology transfer) and 7 (technology transfer process improvements).

Dr. Gansler asked what the problem was that the group was trying to solve, since it wasn't clear from the stated objective. Mr. William Reinsch responded by pointing out that the Extreme Ultraviolet Lithography Cooperative Research and Development Agreement (EUV CRADA) with DOE may eventually involve foreign technology transfer, but that there is no mechanism to address the issue in a coherent fashion. Each agency is looking at the problem from the perspective of its own portfolio, but no one is looking at a national policy. Mr. Reinsch felt that the priority should be on tasks 6 and 7 rather than 8 and 9 as recommended by the group. After some discussion, the committee agreed that the group should focus on tasks 6 and 7. In particular, the group should examine mechanisms (e.g., an organizational structure) that could

consider individual cases as they developed. Dr. Gansler indicated that the group should concentrate on task 7, with nominal effort on task 6. When the group identifies a mechanism, it should be tested on a half dozen cases or so to provide validity. The principals agreed that it would not be appropriate for ICAF to undertake a major new study for the working group, given its academic schedule constraints, and that it is not a multiagency institute. Dr. Jones encouraged the members of the working group to take a more active role.

B. Non-Proliferation and Arms Control Technical Working Group

Dr. Jones introduced Ms. Sallie Mullins of ACDA, one of the three co-chairs of the Non-Proliferation and Arms Control Technical Working Group (NPAC/TWG). Dr. Jones indicated that the group had been in existence for 3 years and had done a good job of gaining ground truth in the area. She had attended the last meeting of the NPAC/TWG, in October 1997, and found policy observations and funding issues identified by the group that were beyond its scope and in need of a forum for further discussion. CNS could be such a forum. As a result, she invited Ms. Mullins to speak about some of the things that had been uncovered that might be of interest to the CNS.

Ms. Mullins believes that there has been good coordination among the TWG members. The problem has been in acquiring the recommended funding. The NPAC/TWG is now working with the Counter Proliferation Review Committee (CPRC) to address common areas of interest. One such area is detecting, characterizing and monitoring; common issues include sensor development and deployment, and modeling. Unattended remote sensors are a useful and productive approach, but programs in this area are vulnerable within various agencies; a more stable 6.1 and 6.2 funding line is necessary for long-term success. However, there is no central leadership in the area of unattended remote sensors. The Measurement and Signature Intelligence (MASINT) office seems to be the logical organization for central leadership. The NPAC/TWG is working with the CPRC to develop an integrated R&D and acquisition plan for unattended remote sensors to improve developer coordination and user acceptance.

Plume modeling is another common area. Although many models exist, agencies tend not to trust models developed by someone else. The Defense Special Weapons Agency (DSWA) has a small effort funded through George Mason University to understand the input parameters to the various models. The TWG recommends that the effort be expanded to develop a matrix that considers a variety of situations in which the models might be used (e.g., battlefield, counterterrorism) and important parameters (e.g., altitude, particle size). The goal would be to determine which models are best suited for specific situations. It was estimated that it would cost \$1.3 million over 3 years to develop this matrix. This would include some R&D and some O&M work on the models.

As an example of why this work is needed, it was pointed out that some models may give two different answers with the same input. Validation and verification may be necessary on some models. The TWG has a proliferation modeling focus group that is monitoring this area. What is needed is better interagency coordination and a slight increase in funds. In response to a question, it was noted that other agencies (e.g., Nuclear Regulatory Commission, NOAA, National Weather Service) use plume models. Plume modeling cuts across the nonproliferation and arms control spectrum.

The NPAC/TWG seeks CNS interest and support in furthering policy discussions on such issues. Dr. Jones suggested that, in addition to its annual report, the NPAC/TWG provide a short list of policy recommendations for the CNS to consider at its next meeting. Ambassador James Sweeney recommended that the list include funding associated with each recommendation.

III. POSSIBLE NEW EFFORTS

A. Critical Infrastructure Protection

Dr. Jones cited the President's Commission report on Critical Infrastructure Protection, which states that R&D in this area is inadequate and should be doubled from the current level of \$250 million. She and Mr. Reinsch sit on the interagency working group (IWG) that is reviewing the report. Discussions have been held on what structure should be established to carry out whatever the government decides to do. The IWG is considering proposals on how to coordinate the R&D.

Dr. Jones has proposed that the CNS be tasked to coordinate the R&D program. This would require working with the Committee on Technology of the NSTC. An IWG involving the two committees would be established. It would also be necessary to have additional members (e.g., Department of Justice). Mr. Reinsch stated that he has spoken with NIST and that they are comfortable with such a group. The CNS agreed that R&D coordination is needed. Dr. Jones indicated that her office is looking into how the Commission calculated the \$250 million funding level and has asked OMB to independently identify the FY98 and FY99 critical infrastructure protection R&D funding levels.

This effort could result in a heavy staff workload, and the group should consider who from each agency would be the appropriate person to work on it. Acceptance of this task would mean that the CNS would have to meet more often, perhaps every 6 weeks. Mr. Reinsch stated that he was glad Dr. Jones was doing the ground work on critical infrastructure protection because it could become the "issue of the year" and receive more money from Congress.

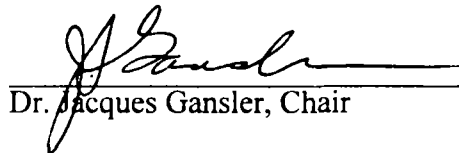
There was consensus among the committee members with the recommendation that the CNS coordinate the R&D on this topic.

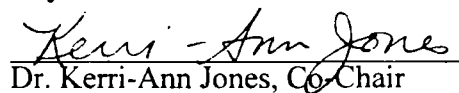
IV. OTHER BUSINESS

There was no other business.

V. CLOSING REMARKS

The next meeting will be scheduled for mid-February 1998.

 7/6/98
Dr. Jacques Gansler, Chair (date)

 1/27/98.
Dr. Kerri-Ann Jones, Co-Chair (date)

Attachments:

1. List of Principals attending
2. Meeting agenda
3. Progress Report Briefing of the CNS Working Group on International Technology Transfer Issues and Policy

**Principals Attending Meeting of Committee for National Security
December 15, 1997**

Dr. Jacques Gansler, Chair	Under Secretary of Defense for Acquisition and Technology
Dr. Kerri-Ann Jones, Co-Chair	Associate Director, National Security and International Affairs, Office of Science & Technology Policy
Ms. Rose Gottemoeller	Director, Office of Non-Proliferation and National Security
GEN John R. Dailey	Associate Deputy Administrator, NASA
Mr. William Reinsch	Under Secretary of Commerce for Export Administration
Dr. Ruth David	Deputy Director, Science and Technology, CIA
Ambassador James Sweeney	Special Representative of the President and Chief Science Advisor, Arms Control and Disarmament Agency
Vice Admiral Richard Herr	Vice Commandant, Coast Guard

**Agenda for the Meeting of the
NSTC COMMITTEE FOR NATIONAL SECURITY**

**December 15, 1997
2:00-3:30 PM
Pentagon, Room 3D1019**

I. INTRODUCTION

II. STATUS OF CURRENT EFFORTS

- International Technology Transfer Interagency Working Group
- Non-Proliferation and Arms Control Technical Working Group (NPAC-TWG)

III. POSSIBLE NEW EFFORTS

- Critical Infrastructure Protection

IV. OTHER BUSINESS

V. CLOSING REMARKS

1997 ANNUAL REPORT
from the
COMMITTEE ON NATIONAL SECURITY
of the
National Science and Technology Council

I. Charter and Membership

The Committee on National Security (CNS) is chartered to facilitate coordination of federal efforts in research and development in areas of national security. The Committee identifies relevant priorities, programs and plans across federal agencies with a view toward advising the NSTC about the vigor and appropriateness of federal investments in R&D that underpin a sound national security posture. Committee activities facilitate coordination and integration of national security science and technology programs, increased operational collaboration among federal agencies and the identification of national security science and technology priorities. As appropriate, gaps and overlaps in programs are identified with a view toward improving investment selections and coordination. Strengths and successes are identified with a view toward optimizing performance, increasing collaboration, leveraging investments and employing economies of scale.

In 1997 fifteen agencies were represented on the Committee. The agencies and members were:

Department of Defense	Dr. Paul Kaminski (Chair, Jan-Jun) Mr. Noel Longuemare (Chair, Jul-Nov) Dr. Jacques S. Gansler (Chair, Dec)
Office of Science and Technology Policy	Dr. Kerri-Ann Jones (Co-Chair)
Department of Agriculture	Dr. Miley Gonzalez
Department of Commerce	Dr. Mary Good Dr. William A. Reinsch Dr. Gary Bachula
Department of Energy	Dr. Victor H. Reis (Vice-Chair) Ms. Rose Gottemoeller
Department of Health and Human Services	Mr. Robert Knouss
Department of Interior	Mr. James F. Devine
Department of State	Ambassador Thomas MacNamara
Department of Transportation	Admiral Richard D. Herr
Central Intelligence Agency	Dr. Ruth A. David
Arms Control and Disarmament Agency	Ambassador James Sweeney Mr. Ralph Earle II
National Aeronautics and Space Admin.	General John R. Dailey, Ret.
Office of the Vice President	Mr. Leon Fuerth
Office of Management and Budget	Dr. Gordon Adams Mr. Gregory Henry

National Science Foundation
National Security Council

Mr. Robert A. Eisenstein
Mr. Robert Bell
Mr. R. Rand Beers

The Executive Secretary to the Committee was Dr. Clarence W. Kitchens, Jr. (Department of Defense).

II. Sub-Committees and Working Groups

Two working groups executed Committee actions: a non-proliferation/arms control technical working group and an international technology transfer working group.

Since being formed in 1994, the Non-Proliferation/Arms Control Technical Working Group (NPAC TWG) has evolved into a highly credible vehicle for coordinating a key element of our national security science and technology strategy. The NPAC TWG is composed of thirteen, inter-agency, subject-specific focus groups and a Technology Needs Subcommittee, drawing on over thirty U.S. Government organizations through the active participation of more than 100 scientists, engineers and program managers. The NPAC TWG is increasingly recognized as a mature and viable forum for initiating and expanding interagency R&D collaboration and examining policies, programs and plans across federal agencies. The NPAC TWG reports to the President through the CNS and the National Security Council.

The International Technology Transfer Working Group was established in December 1996 to identify ways to improve national policy mechanisms governing international technology interactions. The tasks assigned to the Working Group include: reviews of mechanisms and legislation; "Buy American" legislation as a barrier to exports; refinement of definitions of critical technology and related export policies; review of the practices of other governments; consultation with U.S. industry; identification of interagency differences; consideration of improvements for interagency cooperation; risk assessment; and the relationship of export policies on the import of technology. The Working Group has initiated efforts to examine the export of technology in the context of its impact on U.S. security and competitiveness, the adequacy of existing control mechanisms, and interagency approaches and concerns. The Working Group includes representation from the Departments of Commerce, Defense, Energy and State, the Arms Control and Disarmament Agency and NASA.

III. Major Accomplishments

During 1997 the Non-Proliferation/Arms Control Technical Working Group maintained its primary missions of coordinating federal R&D in non-proliferation and arms control and examining policies, programs and plans across federal agencies. In addition to its periodic briefings for the relevant NSC policy internal working groups, the White House Office of Science and Technology Policy and the CNS, the NPAC TWG held discussions with Senate staffers on ways that NPAC TWG elements could complement the work of

Congressional working groups. The NPAC TWG offered to support Congressional seminars and educational fora by serving, on an *ad hoc* basis, as a clearinghouse for current, objective, interagency-coordinated information on non-proliferation and arms control technologies. This will establish a nexus for the administration and Congress to share information that represents the consensus of the federal R&D community on relevant aspects of the U.S. government science and technology strategy.

The NPAC TWG pursued new and expanded efforts in three areas:

- The NPAC TWG collaborated with DoD's web-based Technology Navigator to develop a means for information on technology R&D products and studies to be submitted and routed to NPAC TWG focus groups through a browseable and searchable database. This will help ensure that federal non-proliferation and arms control R&D interests can be effectively communicated to the industry and university communities.
- The Technology Needs Subcommittee formally identified national non-proliferation and arms control issues where technology could be effectively applied in their resolution, and identified and vetted through the NPAC TWG membership, specific tasks and needs that responded to the issues. These steps set the stage for developing priorities for current and future R&D efforts.
- The Technology Needs Subcommittee was effective at raising the level of awareness across the government of the impact of budget reductions and changing priorities on basic research and phenomenology, the transitioning of new technologies to operational use, and the operations and maintenance of key capabilities. Many of these issues represent multi-agency needs that cannot be supported adequately through individual agency budgets.

In December 1997 the NPAC TWG requested that CNS play a role in policy issues that are beyond the scope of the TWG – e.g., budget needs and enhanced coordination. The NPAC TWG has been tasked to provide a short list of policy recommendations and associated funding for the CNS to consider at their February 1998 meeting.

The International Technology Transfer Working Group undertook efforts in 1997 to describe the primary government mechanisms for monitoring, assessing and controlling international technology transfer and the export of technology and equipment, including third party sales. The Working Group concluded that the government presently has only a limited ability to monitor and control the international flow of technology and that the technology which is controlled is primarily that technology governed by the Commerce Control List and the Munitions List. The Working Group identified the Nonproliferation and Export Control Interagency Working Group, Export Administration Review Board, Advisory Committee on Export Policy, Operating Committee on Export Policy and the National Disclosure Policy Committee as the primary interagency groups for monitoring and assessing the transfer of export-controlled technology. The Working Group concluded that although analysis is

occasionally done on individual projects when a case is controversial, in general, the government performs neither prospective, nor retrospective, analyses on the impact of technology exports across multiple programs. Licensing decisions are generally made based on narrow evaluation factors which do not include analyses of multidimensional and long-term effects.

The Working Group also considered interagency issues and differences and found general agreement on many key points. All agencies are generally concerned about the same fundamental considerations: defense, non-proliferation, economic and industrial base and U.S. science and technology leadership. Their differences are differences of emphasis and perspective, and the resulting interagency debate is not only unavoidable, it is healthy and should be fostered.

The Working Group concluded that there is no overarching government process that considers the positive, negative and long-term implications of transfers of technology, either from the U.S. to other countries or between other countries, but that such a process is neither practical, nor desirable. The Working Group will determine whether it is feasible to develop a more systematic policy process for dealing with fast-moving technology and evolving international conditions.

In addition to the CNS activities and accomplishments that aligned with the working groups, other subjects considered by the Committee included: a memorandum of understanding (MOU) signed between DoD and the Semiconductor Industry Association establishing a joint long-term research program, issues associated with radiation-hardened electronic devices, DoD-wide RDT&E resourcing and demographics, and critical infrastructure protection.

IV. Projected 1998 Issues and Activities

The Committee's 1998 activities are expected to focus on three areas: non-proliferation/arms control R&D, international technology transfer and critical infrastructure protection R&D.

Many NPAC TWG technology problems cut across agency missions, but do not currently rise to the level of attention warranted from a national perspective. The key thrust of the 1998 NPAC TWG activities will be to promote a shared interagency understanding of the evolving dynamics of effective R&D coordination in an era of fiscally constrained resources. In our current fiscal environment, it is a great challenge for a single agency to make investments in areas outside its mission that might benefit the broader R&D community and advance counterproliferation and arms control goals.

After three years of developing an effective process for coordinating federal non-proliferation and arms control technology programs within traditional acquisition structures, strong indications have emerged that innovative approaches are needed for debating and

adjudicating recurring technology issues. The NPAC TWG expects to integrate R&D coordination more fully into the budget process by highlighting successful interagency approaches for assigning resources to national needs, encouraging stable and supportive leadership in the R&D community, and ensuring existing and planned efforts have coordinated policy-level justification.

The International Technology Transfer Working Group will focus its 1998 efforts on technology transfer process improvements. In particular, the group will concentrate on identifying mechanisms (e.g., an organizational structure) that can consider individual technology transfer cases as they develop. These mechanism will be tested on a half dozen technology transfer cases to provide validity. In addition, the Working Group will attempt to more fully understand interagency issues and differences on international technology transfer and equipment export.

The President's Commission on Critical Infrastructure Protection (PCCIP) concluded in its October 1997 report that our present national critical infrastructure protection R&D efforts are inadequate and should be doubled from the current level of \$250 million. The CNS endorsed an OSTP proposal that CNS jointly charter a new working group with the NSTC Committee on Technology (CT) that would develop a critical infrastructure protection R&D agenda, coordinate R&D programs, and track budgets. If this proposal is accepted by the Critical Infrastructure Protection Principals Committee, we envision that CNS and CT will quickly establish the joint working group.

It is expected that as other issues arise relevant to national security developments, policies and/or budgets, the Committee on National Security will engage in discussion and activity as warranted.

Agenda for the Meeting of the
NSTC COMMITTEE ON NATIONAL SECURITY

March 31, 1998
3:00-4:30 PM
Pentagon, Room 3D1019

I. INTRODUCTION

II. STATUS OF CURRENT EFFORTS

- Critical Infrastructure Protection
- International Technology Transfer

III. OTHER BUSINESS

- Humanitarian Demining R&D
- FY00 R&D Budget Priorities

IV. CLOSING REMARKS

DRAFT

National Science and Technology Council Committee on National Security Committee on Technology

Terms of Reference for the Interagency Working Group on Critical Infrastructure Protection

Goal

The goal of the Interagency Working Group (IWG) is to define, develop, and monitor critical infrastructure protection (CIP) research and development agendas, policy, and programs for the Federal government.

Scope

The IWG will address Federal government research and development programs that are applicable to the protection of the nation's critical infrastructures. In particular, the IWG will foster collaborative multi-agency R&D initiatives among Federal departments and agencies.

Organization

- The IWG will operate jointly under the NSTC's Committee on National Security and Committee on Technology.
- The IWG will be co-chaired by the Office of Science and Technology Policy and [*organization to be decided*]. Membership includes but is not limited to the Department of State, the Department of Defense, the Department of Treasury, the Department of Justice, the Department of the Interior, the Department of Agriculture, the Department of Commerce, the Department of Labor, the Department of Health and Human Services, the Department of Transportation, the Department of Energy, the Office of Management and Budget, the National Aeronautics and Space Administration, the National Science Foundation, the Central Intelligence Agency, the Arms Control and Disarmament Agency, the Environmental Protection Agency, the Federal Emergency Management Agency, the National Security Council, the National Economic Council and the Office of Science and Technology Policy.
- The IWG will meet weekly to develop a critical infrastructure protection R&D agenda and associated policy, and thereafter bi-weekly to monitor and coordinate the implementation of the agenda and policy.

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- Intra- and interagency coordination will also occur between formal, scheduled IWG meetings.

Activities

The activities of the IWG will include, but not be limited to, the following:

- Coordinating the appropriate Federal government entities to identify relevant long-term R&D objectives. The CIP Working Group will ensure that there are consistent, detailed, and comprehensive communications among the government, private sector, and academia in addressing existing and long-term R&D requirements and programs.
- Drafting infrastructure assurance R&D policy. The National Science and Technology Council (NSTC) shall review all R&D policy.
- Developing and updating as necessary a long-term R&D agenda that addresses current and emerging infrastructure protection requirements. The agenda should leverage related R&D investment agendas and programs of other departments and agencies and the private sector to the degree possible. The agenda should make projections of long-term budget requirements.
- Developing and reporting a fully coordinated infrastructure protection R&D program to the NSTC. This program will be updated annually. Key activities will include:
 - Comparing infrastructure protection R&D needs to current R&D programs and identifying gaps.
 - Coordinating the progress of ongoing infrastructure protection R&D programs.
 - Identifying programs to meet needs, including the augmentation of existing programs when deemed necessary.
 - Prioritizing and sequencing specific R&D programs to address critical needs.
 - Determining funding needed to execute the overall R&D program.
 - Identifying Federal investment levels for ongoing critical infrastructure protection R&D.
- Monitor other ongoing studies of CIP R&D needs, CIP R&D agendas, and infrastructure vulnerabilities; ensure the timely distribution of appropriate studies to government entities; and incorporate recommendations from such studies as necessary and warranted.

Schedule

- By May 1, 1998, the IWG will identify all ongoing Federal critical infrastructure protection R&D programs.

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- By July 30, 1998, the IWG will develop and deliver to the Committee on National Security and the Committee on Technology a draft Federal government critical infrastructure protection R&D agenda and policy.

**National Science and Technology Council
Committee for National Security**

**Terms of Reference for
Ad Hoc Interagency Working Group on Research and Development
for Humanitarian Demining**

Goal

The goal of the Ad Hoc Interagency Working Group (IWG) is to develop a strategy for humanitarian demining research and development. The working group will produce a report that provides a roadmap for the successful development and deployment of equipment and techniques that substantially accelerate the rate, improve the safety, and increase the efficiency of humanitarian demining.

Scope

- Develop a strategy for humanitarian demining R&D efforts
- Support the Global Humanitarian Demining 2010 Initiative
- Support implementation of the President's direction to DoD “to develop improved mine detection and clearing technology and to share this improved technology with the broader international community.”

Organization

- The working group will operate under the NSTC’s Committee for National Security, which is co-chaired by the Associate Director of OSTP for National Security and International Affairs and the Undersecretary of Defense for Acquisition and Technology.
- The working group will be co-chaired by the Senior Policy Analyst, National Security in the Office of Science and Technology Policy and the Director for Requirements, Technology, and Acquisition in the Office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict. Minimum membership will include the Department of Defense, Department of Energy, Department of State, the Central Intelligence Agency, and the National Security Council.
- The working group shall deliver a draft for review and approval by the Committee for National Security by July 31, 1998, with publication scheduled for October 30, 1998.
- The Working Group will disband upon acceptance of the report by the Committee for National Security.

CNS International Technology Transfer IWG

- Case studies--candidates and subjects selected
- Status -- Federal laboratory international technology transfer policies
- Status -- Commercial satellite export controls
- Next steps
-
-

Candidate Cases

- International participation in SEMATECH
- Coproduction of the M109 Howitzer
- Night vision goggle image intensifiers
- Rocket casing manufacturing
- Partnership for a New Generation of Vehicles
- Hot section export controls
- **Civil communications satellites**
- Supercomputer export controls
- Third party licensing
- **Federal laboratory technology transfer policies**

Next Steps

- Briefing by agency tech transfer specialists
- Identification of strengths and commonalities in tech transfer processes
- Complete civil satellite case study
- Respond to other directives of CNS principals

FEDERAL LABORATORY INTERNATIONAL TECHNOLOGY TRANSFER PROCEDURES
SUMMARY TABLE
(FORMAT PROVIDED BELOW FOR COMMENT BY CNS PRINCIPALS)

	DOD	DOC	DOE	NASA
Type of Technology Transfer System - CRADA, other				
Legal/Administrative Basis for Cooperation				
Formal/Informal Process in Place - Standing review/ad hoc				
Process Checkpoints				
- Parameters are considered				
- Key participants				
- Time lines				
- Third party retransfer conditions				
Comments				