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NSTC COMMITTEE ON NATIONAL SECURITY

Minutes—Meeting of October 27, 1998

E-STEIN

The Committee on National Security (CNS) held its eighteenth meeting on October 27, 1998. The principals who attended are listed at Attachment 1. The primary purpose of the meeting was to receive status reports from the International Technology Transfer Issues and Policy Interagency Working Group, the Critical Infrastructure Protection R&D Interagency Working Group, and the Nonproliferation and Arms Control Technology Working Group. The meeting agenda is shown at Attachment 2.

I. INTRODUCTION

Dr. Kerri-Ann Jones, co-chair of the CNS, opened the meeting and welcomed Dr. Jorge Perez-Lopez, Director, Office of International Affairs, Department of Labor.

II. CURRENT EFFORTS**A. International Technology Transfer Issues and Policy—Update**

Dr. Jones introduced Dr. Gerald Hane, the OSTP chair of the International Technology Transfer Issues and Policy Interagency Working Group (ITTIP IWG). Dr. Hane first discussed the Federal Laboratory International Technology Transfer Policies case study. The IWG recently learned that DOD had commissioned a study by Booze-Allen and Hamilton (BAH) on the same issue and is holding final work on the federal laboratory technology transfer case study in abeyance pending the results of the BAH study.

the IWG

The goal of the BAH study is similar to that of the IWG—to determine how technology transfer practices can be improved while taking into consideration economic

and national security issues. The scope of the BAH study, however, is somewhat more limited: it focuses specifically on cooperative research and development agreements (CRADAs). Nevertheless, the preliminary findings are similar to those of the IWG: (1) improvements of internal controls could help the process, and (2) interagency consultations would be helpful in certain situations. Once BAH has completed its study, the IWG will finalize its findings and brief the results of both efforts to the CNS.

As background on the BAH study, Dr. Jaques Gansler noted that thousands of Chinese and Russian post-doctorals are working in DOE national laboratories, frequently in areas adjacent to sensitive work. A quick check of DOD laboratories, in particular, USAMRIID, ^{similarly found} ~~found a similar relaxation of controls~~ of foreign scientists working in proximity to U.S. personnel ~~working in sensitive areas~~. The BAH study is providing insight on the need for tighter controls in these areas.

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Mr. William Reinsch indicated that BAH is also examining DOE CRADAs. Their study focuses on foreign involvement in CRADAs and the process for making judgments on foreign participation.

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Dr. Hane pointed out a significant difference between the BAH and ITTIP IWG studies. The BAH effort really consists of two studies—one looking at CRADAs and the other at technical personnel—while the IWG is only examining CRADAs. Dr. Hane suggested that the CNS principals should provide specific guidance if they would like the IWG to include personnel issues. The CNS principals agreed that the IWG should include personnel in its study. A separate technology transfer working group led by the Department of Commerce (DOC) has been meeting on an irregular basis. Due to the interests of CNS, they have become more active and have offered to help the ITTIP IWG. Dr. Hane indicated that the IWG will work with the DOC group in developing recommendations to be presented to the CNS.

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nm ?
DOC has prepared two additional case studies: (1) International SEMTECH 300 mm Wafer Initiative and (2) Rocket Casing Manufacturing. The IWG is circulating copies of both studies for internal review. Dr. Hane noted that the IWG members are not experts and will need to reach out to other parts of their agencies for advice. This is a key step, and the IWG asked the principals for assistance. Dr. Jones asked Dr. Hane to distribute the IWG membership list so that the principals would know who represents their agencies (list at Attachment 3).

Mr. Reinsch noted that DOC is preparing the next three case studies: (1) coproduction of M-109 Howitzer, which will be completed in November 1998, (2) high performance computer export controls due in December 1998, and (3) third-party licensing due in January 1999.

B. Critical Infrastructure Protection R&D—Agenda Overview

Dr. Jones introduced Dr. Steve Rinaldi from the Critical Infrastructure Protection (CIP) R&D IWG. Dr. Rinaldi distributed the IWG membership list (copy at Attachment 4). He indicated that the group expected to complete its proposed CIP R&D agenda for FY2000 in the next day or two.

As background information, Dr. Rinaldi noted that the IWG was established in late March 1998 in response to efforts to develop Presidential Decision Directive (PDD) 63, Critical Infrastructure Protection, which was signed on May 22, 1998. PDD 63 established the Critical Infrastructure Coordinating Group (CICG) which has agreed to use the output of the CIP R&D IWG as its R&D analyses. The IWG is organized into eight subgroups based primarily on the eight critical infrastructures: (1) banking and finance; (2) information and communication; (3) energy, which includes the electric power grid, oil, and natural gas production and storage; (4) transportation; (5) vital human services, which include emergency responders, continuity of government services and medical issues; (6) interdependencies; (7) outreach; and (8) budget.

The IWG initially established a baseline of on-going federal CIP R&D. OMB did a quick analysis in December 1997 and estimated that federal CIP R&D funding was \$710 million in FY98 and \$715 million in FY99. The read-ahead material indicated a value of \$785 million which included \$70 million in DARPA's budget that was subsequently zeroed by Congress. A second data call in June 1998 provided programmatic detail on ongoing and proposed CIP R&D. The IWG used the results of the two data calls as its baseline program. Currently, OMB has a detailed budget data review (BDR) underway with results due in December 1998 that will provide a qualitative and quantitative picture of ongoing agency CIP R&D. The IWG did not perform any vulnerability studies; rather, it relied on studies done by the President's Commission on Critical Infrastructure Protection (PCCIP) and others.

The IWG used a two-step process to develop its budget recommendations for FY2000. First, it identified a comprehensive agenda that included all necessary and desirable CIP R&D without constraints of money or time. The IWG then compared the comprehensive agenda to the baseline, with the resultant differences representing R&D gaps and related needs.

The IWG set priorities in its second step. Given that sufficient funding is not available to undertake all of the R&D in the comprehensive agenda, each IWG subgroup identified its top five priorities among all the programs they reviewed. Several common R&D needs were noted:

- Vulnerability studies need to be done in greater detail. Peggy Evans, OMB, noted that many vulnerability studies do not identify a clear threat. Dr. Gansler noted that there are probably threat studies that the IWG did not review due to security restrictions. He agreed that the IWG needed access to those studies.
- There is a need for increased information assurance R&D.
- Intrusion detection and monitoring, including that for chemical and biological agents, is critical.

- Interdependencies among infrastructures are not well understood. Each IWG subgroup recommended increased study of interdependencies.

The IWG developed a series of R&D options for FY2000 that include new starts and extensions of ongoing programs. As a result of its analysis of the top subgroup priorities, the IWG recommends \$250 million in new CIP R&D funding for FY2000. Larger funding increases wedges are too big to be properly managed; smaller funding options would likely not allow PDD 63 guidance to be met. The recommended funding level best balances the need for fiscal restraint and meets the guidance of PDD 63. The roadmapping study conducted by the Critical Infrastructure Assurance Office earlier this year provided substantial input to the IWG analyses.

Mr. Reinsch asked how the IWG decided on specific values for the programs and if these values represented at least notional projects. Dr. Rinaldi answered that the values were based on notional programs and an assessment of needs and shortages in current efforts. Therefore, the \$250 million provides for incremental changes in existing programs and represents an increase over the baseline. Dr. Gansler recommended that the IWG complete its baseline evaluation so that the magnitude of the current programs could be better assessed in comparison with the incremental increases and total needs. Dr. Rinaldi noted that OMB's BDR would provide the necessary program baseline data, which will then be tabulated and provided to the CNS.

PDD 63 calls for a report to the President by November 19 with a plan to develop a comprehensive federal critical infrastructure protection plan that includes milestones for each CICG subgroup. The IWG accelerated its timetable and developed the proposed FY2000 agenda in order to provide inputs into the FY2000 budget process. The final version of the IWG's proposed FY2000 agenda should be completed within a day or two of the CNS meeting.

Dr. Gansler congratulated the IWG on its progress. He further asked if all the IWG participants were fully aware that the report has proceeded beyond the plan-for-a-plan mandate of the PDD for November delivery. Dr. Rinaldi noted that they were and that the IWG had been actively developing the R&D plan itself since March. It was recognized that the IWG-recommended increases in R&D had not been coordinated in detail with each department and agency. Rather, the IWG recommendations were part of an independent report based on the group's programmatic and technical analysis. Dr. Jones emphasized that the report would be distributed to the CNS for review and requested that this be considered as a streamlined agency review. She also noted that OSTP wished to review the IWG's proposed agenda with respect to other federal research priorities.

From October 1998 to February 1999, the IWG will concentrate on outreach to the private sector, academia, and international communities. From February to June, the group will monitor ongoing CIP R&D and develop FY2001 R&D proposals in close coordination with normal agency budget processes.

C. Nonproliferation and Arms Control—Annual Report Overview

Dr. Jones introduced Ms. Sarah Mullen of ACDA to present the annual report of the Nonproliferation and Arms Control Technology Working Group (NPAC TWG). In terms of fulfilling the group's organizing principles, Ms. Mullen rated the group an "A" in promoting information sharing; a "B" in enhancing effectiveness, minimizing proliferation of working groups, and developing informal budget crosscuts; and a "C" in advising agencies on R&D priorities and framing issues and differences for adjudication. Concerning these last two principles, Ms. Mullen read from Under Secretary Holum's speech at last week's NPAC TWG symposium. He noted that although the NPAC TWG has been successful, its concept has inherent drawbacks that inhibit progress. TWG recommendations do not carry requisite weight within the acquisition structures of individual agencies. Technology shortfalls characterized as "national level needs" do not

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necessarily translate into high-priority R&D projects. ^{within individual agencies.} R&D managers have little latitude to expend resources for the common good. Since the TWG has no discretionary funds, NPAC TWG-identified needs sometimes go unfulfilled. The TWG has only been partially successful in engaging policymakers at a level where priorities among competing national-level projects can be established and resources directed. (The CNS is one such policymaking body.) The NPAC TWG's role is not to prioritize agency R&D programs but rather to advise agencies on program priorities. New ways are needed to adjudicate conflicting R&D program issues if the NPAC TWG is to fulfill its mandate.

The NPAC TWG has 13 focus groups. There have been changes in two of the groups. First, the Fissile Material Monitoring focus group was ^{reoriented} ~~refocused~~ last year. This group was originally intended to handle the Fissile Material Cutoff Treaty (FMCT), but given the slow progress in that area, the subgroup did not have much work to perform. More recently, it has examined policy needs in three areas: the FMCT itself, ^{nuclear} safeguards, and controlled information barriers. Second, the former START focus group has been redirected its attention toward ballistic missile sensors and now includes ^{the} missile Technology Control Regimes as well as missile limitation treaties.

^{280 R&D programs totalling}
The NPAC TWG coordinates approximately \$770 million ^{in 280 programs} ~~in 280 programs~~. Ms. Mullen noted that in 1996-1998, there was an increased emphasis in CW and BW detection but declining interest in active electro-optics, unattended sensors, and underground facilities. Dr. Gansler noted that the FY99 and FY00 budgets have substantial increases in the last two topics.

Ms. Mullen noted that several organizational issues have arisen in the past year. ACDA will be incorporated into the State Department, but Ms. Mullen will continue as a co-chair. ~~Mr. Walter Busbee~~ ^{Mr. Walter Busbee}, The DOD co-chair, Mr. Walter Busbee, retired and has not yet been replaced. Ms. Mullen urged that the DOD co-chair be someone who would be proactive and support the mandate of the NPAC TWG. The CIA has abolished its Office of Research and Development (ORD). Some NPAC TWG-related projects previously

funded by ORD have been transferred to other parts of the agency, while other projects have been terminated (which is of concern).

The NPAC TWG made five recommendations:

- Strengthen the role of the Technology Needs Subcommittee, expand its membership to include the Defense Threat Reduction Agency, and distribute the subcommittee results more widely.
- Expand communication between the senior policymakers, the developers, and the users. Ask each focus group to conduct user-developer conferences. In addition, have a representative of each focus group attend appropriate policy backstopping meetings.
- Convince R&D principals to make their R&D enterprises more transparent and to help the NPAC TWG frame its issues for their agency's consumption. ?
- Partner with other agencies that are developing technology not directly related to nonproliferation but that may have ancillary utility (e.g., R&D at NIH and EPA that may be useful in BW area). ^(countering or responding to use of biological weapons)
- Increase accountability for the work of the TWG and its focus groups.

Dr. Gansler provided an overview of the new Defense Threat Reduction Agency (DTRA), which stood up on October 1. It is a consolidation of the Office of the Assistant to the Secretary of Defense for Chemical and Biological Matters, the Defense Special Weapons Agency (DSWA), the Onsite Inspection Agency (OSIA), and the Defense Technology Security Administration (DTSA). This new organization is intended to provide increased focus in threat reduction and nonproliferation. DTRA includes full-time representatives from other agencies (e.g., FBI, DOE, CIA) on the staff of its director. It has a senior advisory board that will conduct operations research analyses that include determining where new nonproliferation investments should be made and determining new policy initiatives to be undertaken.

III. OTHER BUSINESS

A. FY2000 R&D Budget Priorities

Dr. Jones distributed an article from *Science* magazine that summarized the FY99 R&D budget as compiled by the American Association for the Advancement of Science (AAAS). For the FY2000 budget, OSTP and OMB consider critical infrastructure to be a special emphasis area. The CNS may want to have it considered as a cross-cut issue next year, ^{which} ~~that~~ would require a full programmatic review in conjunction with OMB. Another area of interest to the CNS is high-performance computers, which is currently a formal budget cross-cut ^{technology} area.

B. Weapons of Mass Destruction R&D Subgroup

^{e.g. before 12/17, or at the 12/17 meeting?}
 At their last meeting, the CNS principals discussed the Weapons of Mass Destruction ^{Preparedness Group, which itself had been} Research and Development (WMD R&D) IWG established under PDD 62. The ^{R&D to counter terrorism} IWG covers chemical, biological, and nuclear ^{subgroup} issues from both medical and nonmedical perspectives. The IWG has three subgroups: a medical R&D team, a nonmedical R&D team, and a modeling and simulation team. The IWG is examining data provided by the medical team on essential research and vaccines for gaps and impacts on the FY2000 budget. The nonmedical team prepared a report based on the work of the Technical Support Working Group (TSWG) that identified some R&D needs but focused primarily on applications. The IWG created the nonmedical team to examine long-term research needs. The IWG reviewed a modeling and simulation paper prepared by DOE last week. A analysis of these three teams is planned during the next two weeks to see how their work will feed into the NSC WMD umbrella process. This R&D area will likely become as active as the critical infrastructure protection R&D program. A key question is managing these large, interagency R&D programs. The CNS requested that the WMD R&D subgroup provide an in-depth briefing on its plans and progress in the near future.

R&D subgroup that had been established under the

See my email

IV. ACTION ITEMS

- The ITTIP IWG will examine the issue of technology transfer via foreign personnel.
- The CIP IWG will provide its proposed FY2000 R&D agenda to the CNS for review.
- The CIP IWG will compare the results of OMB's BDR to its proposed FY2000 R&D agenda and provide the results of this analysis to the CNS for review and assessment.

V. CLOSING REMARKS

Dr. Jones adjourned the meeting.

Dr. Jaques Gansler, Chair (date)

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

Attachments:

1. List of principals attending the meeting
2. Meeting agenda
3. Member list, Working Group in International Technology Transfer
4. Member list, Working Group in Critical Infrastructure Protection

**Principals Attending Meeting of Committee on National Security
October 27, 1998**

Dr. Jaques Gansler, Chair	Under Secretary of Defense 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
Ms. Rose Gottemoeller	Director, Office of Nonproliferation & National Security, Department of Energy
Mr. Jorge Perez-Lopez	Director, Office of International Affairs, Department of Labor
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

NSTC COMMITTEE ON NATIONAL SECURITY**Minutes—Meeting of October 27, 1998**

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focuses specifically on cooperative research and development agreements (CRADAs). Nevertheless, the preliminary findings are similar to those of the IWG: (1) improvement in internal controls can help the process and (2) there are areas where interagency consultation would be helpful. Once the BAH study has been completed, the IWG will finalize its findings and brief the results of both efforts to the CNS.

As background on the BAH study, Dr. Jaques Gansler noted that thousands of Chinese and Russian post-doctorals/^{Students} are working in DOE national laboratories, frequently in ^{local} areas adjacent to sensitive work. A quick check of DoD laboratories/^{in particular,} USAMRIID, found a similar relaxation of controls of foreign scientists working in proximity to U.S. personnel working in sensitive areas. The BAH study is providing insight on the need for tighter controls in these areas.

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Two case studies have been prepared by DOC: (1) International SEMTECH 300 mm Wafer Initiative and (2) Rocket Casing Manufacturing. The IWG is circulating copies of both studies for internal review. Dr. Hane noted that the IWG members are not experts

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and they need to reach out to other parts of their agencies for advice. That is a key step, and the IWG ^{is asking} for that assistance. Dr. Jones asked Dr. Hane to distribute the list of the members of the IWG so that the principals would know who their representatives are (copy at Attachment 3).

Forward?

Mr. Reinsch noted that there are three more studies being worked on by DOC: one on the Coproduction of M-109 Howitzer, which will be completed in November 1998, one on High Performance Computer Export Controls due in December 1998, and one on Third-Party Licensing due in January 1999.

B. Critical Infrastructure Protection R&D—Agenda Overview

Dr. Jones introduced Dr. Steve Rinaldi, chairman of the Critical Infrastructure Protection R&D IWG. Dr. Rinaldi distributed the membership list of the IWG (copy at Attachment 4). He indicated that the group expected to complete the FY 2000 agenda for the CIP R&D IWG in the next day or two.

As background information, Dr. Rinaldi noted that the IWG was established in late March 1998 in response to efforts to develop Presidential Decision Directive (PDD) 63, Critical Infrastructure Protection, which was signed on May 22, 1998. PDD 63 established the Critical Infrastructure ^{ion} Coordinating Group (CICG) which ~~has~~ agreed to use the output of the CIP R&D IWG as its R&D element. The IWG is organized into eight subgroups based on the eight critical infrastructures: (1) banking and finance; (2) information and communication; (3) energy, which includes the electric power grid, oil, and natural gas production and storage; (4) transportation; (5) vital human services, which include emergency responders, continuity of government services and medical issues; (6) interdependencies; (7) outreach; and (8) budget.

The first task undertaken by the IWG was to establish a baseline of ~~what was on-~~
going in the federal government. OMB did a quick data call in December 1997 and

CIP R&D

identified \$710 million in FY 98 and \$715 million in FY 99. The read-ahead material indicated a value of \$785 million, but that included \$70 million in DARPA's budget that was zeroed out by Congress. A subsequent data call in June 1998 was more programmatic, and OMB has a detailed data call underway with results due in December 1998 that will allow a good understanding of what is ongoing in the agencies. The IWG did not do any vulnerability studies; rather, it relied on work done by the Commission and others to bring everyone up to the same level.

The IWG used a two-step process. First, they identified a comprehensive agenda that includes everything that needs to be done without constraints of money or time. They then compared that to the baseline. The differences are the gaps and related needs.

The second step was to set priorities. Since money is not available to do everything, each subgroup was asked to identify its top five priorities among all the programs they reviewed. Several common threads were noted:

- Vulnerability studies need to be done in greater detail. The OMB representative noted that many vulnerability studies do not identify a clear threat. Dr. Gansler noted that there are probably threat studies that the group did not see because of security restrictions. He agreed that the IWG needed to gain access to those studies.
- There is a need for increased information assurance.
- Intrusion detection and monitoring is critical. This includes chemical and biological agents.
- Coordination and communication between subgroups is needed to identify interdependencies and common tasks and goals, reduce duplication of efforts, and provide a basis for plans and programs.

The IWG developed a series of options for FY2000 that are either new starts or extensions of ongoing programs. As a result of their analysis of the top five priority programs submitted by the subgroups, the group recommends the \$250 million wedge.

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larger
The ~~larger~~ wedges are too large to be properly managed; *and* the smaller options ~~may~~ *would* not allow PDD 63 guidance to be met. The recommended wedge best balances the need for fiscal restraint and meets the guidance of PDD 63. A major underpinning of this assessment was the roadmapping study conducted by the Critical Infrastructure Assurance Office earlier this year. *< provided substantial inputs to the DEX analysis*

Mr. Reinsch asked how the IWG decided on specific values for the programs and if these values represented at least notional projects. Dr. Rinaldi answered that the values were based on notional programs and an assessment of needs and shortages in current efforts. Therefore, the \$250 million provides for incremental changes in the programs and represents an increase over a baseline. Dr. Gansler recommended that the IWG complete ~~the~~ *their* baseline evaluation so that the magnitude of the current programs could be better assessed in comparison with the incremental increases and total needs. Dr. Rinaldi noted that the ongoing OMB budget review should provide the program baseline data, which will then be tabulated and made available to the CNS.

PDD 63 calls for a report to the President by November ~~19~~ *18* with a plan to develop a plan for the preparation of the critical infrastructure protection plan with the milestones for each of the subgroups under the CICG. The IWG accelerated this timetable and has developed the proposed FY2000 ~~plan~~ *R&D Options* in order to come into better synchronization with the department and agency budget cycles. The final version should be completed within a day or two of the CNS meeting.

Dr. Gansler congratulated the IWG on its progress. He further asked if all the IWG participants were fully aware that the report has proceeded beyond the plan-for-a-plan mandate of the PDD for November delivery. *D*

With the rapid advances in technology and changing threats, it will be necessary to monitor the plan continuously and revise it as necessary. Dr. Rinaldi noted that they were and that the IWG had been actively developing the plan itself since March. It was recognized that the IWG-recommended increases in R&D had not been coordinated in

detail with each department and agency. Rather, they were part of an independent report based on the group's programmatic and technical analysis. Dr. Jones emphasized that the report would be distributed to the CNS for review and requested that this be considered as a streamlined agency review. She also noted that OSTP wished to review the plan also with respect to other research priorities.

In the period from October 1998 to February 1999, the IWG will work on outreach~~ing~~ to the private sector, academia, and international communities. ~~The emphasis will be on how R&D in these areas can be performed with foreign partners. In the period from February 1999 to June 1999, the group will be looking at FY2001 budget issues in parallel with departments and agencies in order to fit into the normal budget cycle.~~

develop R&D options for FY2001 in close coordination with the normal agency budget processes.

C. Nonproliferation and Arms Control—Annual Report Overview

Dr. Jones introduced Ms. Sarah Mullen of ACDA to present the annual report of the Nonproliferation and Arms Control Technology Working Group (NPAC TWG). In terms of fulfilling the group's organizing principles, Ms. Mullen rated the group an "A" in promoting information sharing; a "B" in enhancing effectiveness, minimizing proliferation of working groups, and developing informal budget crosscuts; and a "C" in advising agencies on R&D priorities and framing issues and differences for adjudication. Concerning these last two principles, Ms. Mullen read from Under Secretary Holum's speech at last week's NPAC TWG symposium. He noted that although the NPAC TWG has been successful, its concept has inherent drawbacks that inhibit progress. TWG recommendations do not carry requisite weight within the acquisition structures of individual agencies. Technology shortfalls characterized as "national level needs" do not necessarily translate into high-priority R&D projects. R&D managers have little latitude to expend resources for the common good. Since the TWG has no discretionary funds, NPAC TWG-identified needs sometimes go unfulfilled. The TWG has only been partially successful in engaging policymakers at a level where priorities among competing national - level projects can be established and resources directed. (The CNS is one of these

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 policymakers. It is not the role of the NPAC TWG to prioritize agency R&D programs, but rather to advise agencies on those program priorities. New ways are needed to adjudicate conflicting R&D program issues if the NPAC TWG is to fulfill its mandate.

The NPAC TWG has 13 focus groups. *Three groups have changed during the last year.* There have been changes in two of the groups. The Fissile Material Monitoring focus group ~~was refocused last year. This group~~ *which performed R&D needs relevant to* ~~was originally intended to handle the Fissile Material Cutoff Treaty (FMCT), but because~~ *redirection of attention to* ~~of slow progress in that area, it did not have much to do. It has examined policy needs in~~ three areas: the FMCT itself, safeguards, and controlled information barriers. The former START focus group has been redirected toward ballistic missile sensors and now includes missile technology control regimes as well as missile limitation treaties.

The NPAC TWG coordinates approximately \$770 million in 280 programs. Ms. Mullen noted that in 1996-1998 there was an increasing trend in CW and BW detection but a decreasing trend in active electro-optics, unattended sensors, and underground facilities. Dr. Gansler noted that in the FY99 and FY00 budgets, ~~there was a significant~~ *increase in* the last two topics. *received substantial funding increases.*

Ms. Mullen noted that several organizational issues ~~have arisen~~ *arose during* in the past year. ACDA will be incorporated into the State Department, but Ms. Mullen will continue as a co-chair. The DoD co-chair, Mr. Walter Busbee, retired, ~~his replacement has not been~~ *and* selected. Ms. Mullen urged that the DoD co-chair be ~~someone who would be~~ *and* proactive and support the mandate of the NPAC TWG. The CIA ~~has~~ *has* abolished its Office of Research and Development (ORD). Some of the NPAC TWG-related projects previously funded by ORD have been transferred to other parts of the agency, but some projects have been terminated, ~~and this~~ *which* is of concern.

The NPAC TWG made five recommendations:

- Strengthen the role of the Technology Needs Subcommittee; ~~Expand~~ its membership to include the Defense Threat Reduction Agency, and distribute more widely the subcommittee results.
- Expand communication ^{among} ~~between the~~ senior policymakers, ~~the~~ developers, and ~~the~~ users. Ask each focus group to conduct user-developer conferences. In addition, have a representative of each focus group attend appropriate policy backstopping meetings.
- Convince R&D principals to make their R&D enterprises more transparent and ~~to~~ help the NPAC TWG frame its issues for their agency's consumption.
- Partner with other agencies that are developing technology not directly related to nonproliferation but that may have ancillary utility (e.g., R&D at NIH and EPA that may be useful in BW area).
- Increase accountability for the work of the TWG and focus groups.

Dr. Gansler provided an overview of the new Defense Threat Reduction Agency (DTRA). ^{and is a} ~~It resulted from the~~ consolidation of the Assistant to the Secretary of Defense for Chemical and Biological Matters, the Defense Special Weapons Agency (DSWA), the Onsite Inspection Agency (OSIA), and the Defense Technology Security Administration (DTSA). The DTRA includes full-time representatives from other agencies (e.g., FBI, DOE, CIA) on the staff of the director. It also includes a new advisory board of ~~very~~ senior individuals to conduct operations research-type analysis, to include determining where new investments should be made in nonproliferation and ^{recommending} ~~looking for~~ new policy initiatives that should be undertaken. ~~DTRA was~~ stood up on 1 October. This new organization is intended to provide increased focus in threat reduction and nonproliferation.

III. OTHER BUSINESS

A. FY00 R&D Budget Priorities

turned to several budget issues.
Dr. Jones distributed an article from *Science* magazine that summarized the FY99 budget according to the American Association for the Advancement of Science (AAAS). *For* In terms of the FY2000 budget, critical infrastructure is being considered as a special emphasis area. The CNS may want to have it considered as a cross-cut issue next year. That would require a full programmatic review with OMB. Another area of interest to the CNS is high-performance computers, *which* That is ~~now~~ a formal cross-cut. *De...*

B. Weapons of Mass Destruction R&D Subgroup

Jack O. Jarvis inputs
At the last CNS meeting, *the principals discussed establishing* the establishment of the Weapons of Mass Destruction Research and Development (WMD R&D) Subgroup ~~was discussed~~. The subgroup covers chemical, biological, and nuclear issues from both the medical and nonmedical perspective. An R&D subgroup was established that collected information from the medical R&D team, the nonmedical R&D team, and the modeling and simulation team. Data provided by the medical team on essential research and vaccines is being examined for gaps and impact on the budget. The nonmedical team did a report based on the work of the Technical Support Working Group (TSWG) that identified some of the needs but focused primarily on application, which is where TSWG does most of its work. A nonmedical group will have to be created that looks at long-term research. A modeling and simulation paper, prepared by DOE, was reviewed by the subgroup last week. A structural analysis of these three groups is planned in the next 2 weeks to see how they feed into the NSC umbrella process. This area will have to become as intense as the critical infrastructure. A key question is how to manage these R&D programs. The CNS requested that the WMD R&D subgroup be placed on the CNS agenda in the near future for a more in-depth briefing on plans and progress.

IV. ACTION ITEMS

- The ITTIP IWG will include personnel in its charter. *(?)*
- The CIP IWG will provide its working group report to the CNS for review. ✓

- The CIP IWG will ^{compare} provide baseline fiscal data on current program funding to ~~the~~ ~~CNS for review and assessment.~~ *recommended new CIP R+D* ~~and~~ *provide* *The IWG will provide this assessment to the CNS.*

V. CLOSING REMARKS

Dr. Jones adjourned the meeting.

Dr. Jaques Gansler, Chair (date)

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

Attachments:

1. List of principals attending the meeting
2. Meeting agenda
3. Member list, Working Group in International Technology Transfer
4. Member list, Working Group in Critical Infrastructure Protection

**Principals Attending Meeting of Committee on National Security
October 27, 1998**

Dr. Jaques Gansler, Chair	Under Secretary of Defense 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
Ms. Rose Gottemoeller	Director, Office of Nonproliferation & National Security, Department of Energy
Mr. Jorge Perez-Lopez	Director, Office of International Affairs, Department of Labor
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