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

Directorate for National Security and International Scientific Affairs

ISSUE BRIEFS

International S&T Issues

Space Issues

Intelligence Issues

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September 3, 1993

International S&T Issues

Note: The views expressed below are those of David Beckler. They draw heavily on material contributed by Jeff Schweitzer (referenced in a separate notebook).

Committee on International Science Engineering, and Technology (CISET)

CISET was established under the FCCSET to address significant international policy matters that cut across agency boundaries and to provide a formal mechanism for interagency policy review, planning, and coordination. The future of CISET is at a crossroads. In the absence of a functioning mechanism to coordinate international S&T policy, OSTP is losing the ability to influence important agency decisions. The seriousness of this trend depends on the kind of leadership OSTP wishes to exercise vis a vis State and the technical agencies. The planned reorganization of the FCCSET committee structure and the absorption of FCCSET functions by the proposed National Science and Technology Council (NSTC) provides an opportunity to consider CISET's future status, its strengths and weaknesses, functions, chairmanship, and priorities.

A decision on the future of CISEP requires OSTP to define its own role in international S&T, particularly in shaping and coordinating international S&T policies and intergovernmental S&T cooperation. A close working relationship between OSTP and State is crucial in any event. One determinant of this relationship is the selection of the CISET chairman. Past experience with chairmanship by State at Undersecretary level has been unsatisfactory due to insufficient attention to CISET and a tendency to pursue State's foreign policy interests while subordinating technical aspects of international cooperation. Schweitzer recommends that CISET be chaired by a technical agency to assure that the chairman devotes sufficient time to the committee and that it is not dominated by State's policy interests. On the other hand, it might be in the long-term interest of OSTP for State to exercise greater government-wide leadership in international S&T affairs and that the designation of a chairman from State would serve that interest, particularly Tim Wirth who holds the new post of Undersecretary for Global Affairs. Through Tim Wirth, there is an unprecedented opportunity to strengthen the hand of S&T in State, which has been sorely lacking for many years (and was a major frustration for Alan Bromley). Although Wirth has purposefully assumed leadership in interagency coordination in some areas formerly led by OSTP, Jack Gibbons' excellent relationship with Wirth could lead to a cooperative rather than competitive relationship -- a relationship that might be impaired by selecting a chairman for the first time outside of State.

Action:

1. Reassess the role and functions of OST in international scientific affairs with a view to delegating to State and other agencies as much responsibility for detailed coordination and implementation as possible consistent with maintaining central policy oversight and management control.
2. Take early steps to decide the future status of CISET, to reactivate it or establish another interagency mechanism to coordinate international S&T issues.
3. Meet with key CISET members to discuss the roles of State, OSTP, and CISET in international S&T cooperation -- with State (Wirth, Constable and Boright), and with key agencies (particularly Baker, head of NOAA) before recommending the next chairman.
4. Consult with the Director on (a) the OSTP role; (b) the future of CISET in the context of FCCSET reorganization and establishment of the NSTC; and (c) the chairmanship of the "new" CISET;

U.S.-Japan S&T Cooperation

S&T interactions between U.S. and Japan are perhaps the most important we have with any foreign country. The proliferation of proposals from Japan for S&T cooperation (particularly in energy and environment) warrant a strategic look from the perspective of U.S. domestic needs. Preparation for Clinton-Hosokawa summits, U.S.-Japan High Level Committee meetings, and the G-7 meetings should be coordinated within the USG to ensure that their separate initiatives result in a coherent and meaningful approach to S&T cooperation based on the U.S. domestic focus. OSTP should continue to play a leading role in such coordination. [OSTP led efforts to conclude negotiations with Japan to renew the U.S.-Japan S&T agreement and organized and managed the substantive preparations for the U.S.-Japan High Level Committee meeting]. Tim Wirth, has recently taken an aggressive stand on State's role vis a vis Japan. This underscores the need for an appropriate division of labor between the OSTP and State that allows each to focus on its strengths and responsibilities. Jack Gibbons should co-chair the U.S.-Japan High Level Committee (with foreign policy guidance from State) since it will be dealing principally with the technical substance of issues that are of concern to S&T agencies. OSTP leadership would assure high-level participation and a meaningful S&T dialogue with a Japanese co-chairman versed in S&T.

Schweitzer feels that, ultimately, OSTP's role will depend on the degree to which Jack Gibbons is willing to take on Tim Worth to claim leadership on S&T policy with Japan. I feel that the best course is for OSTP to decide on the role it wishes to play and to evolve a complementary, cooperative relationship based on mutual understanding of respective strengths..

Action:

1. Developments in U.S.-Japan S&T cooperation offer two near-term opportunities for OSTP to define its role vis a vis State in international S&T: (a) in coordinating the

burgeoning number of cooperative activities and (b) in leading U.S. delegations to high-level meetings.

2. Discuss with Bob Watson the development of a rational approach to environmental cooperation with Japan, how it should be organized and coordinated, and how the two Directorates should work together.

China

The primary mechanism for coordinating bilateral S&T cooperation with China is the U.S.-China S&T Umbrella Agreement, first signed in 1979 by President Carter. Renewed for five years in 1991, the agreement calls for annual meetings of a U.S.-PRC Joint Commission (which has not met since 1987). The Chinese have pressed hard for an early meeting of the Joint Commission as a symbol that our relationship has normalized. State is now proposing a date of December 6, 1993 depending on the likelihood that issues important to the U.S. will be resolved (ranging from immediate problems on the table concerning reciprocity in exchange of genetic material and management of social survey data, to intellectual property rights, defense conversion, environmental protection, and possibly peaceful uses of nuclear energy, missile technology controls, and nonproliferation). The question of whether to hold the Joint Commission meeting is currently under review at the NSC.

Action:

1. Assess with NSC and State the likelihood that issues important to the U.S. will be resolved at an early meeting of the Joint Commission (a State department stipulation), and decide whether and when to hold the meeting.
2. Notify the Chinese embassy within a few weeks whether we will agree to a Joint Commission meeting. On August 11, Dr. Gibbons indicated to Chinese Ambassador Li Daoyu that a Joint Commission meeting would be useful, but that he could not make a firm commitment. He said that he would get back to the Ambassador within a month.
3. Initiate U.S.-PRC joint staff work to identify and resolve priority outstanding S&T issues prior to the meeting while we still retain the leverage of further postponement.

Russia [Note enclosed memorandum from Tom Ratchford of 9 August prepared at your request]. Your membership on Strobe Talbott's committee should facilitate OSTP's involvement and influence in a number of U.S.-Russia issues, including those below.

A. Chairmanship of the U.S.-Russia Joint Commission on S&T. The U.S.-Russia Agreement for Cooperation in the Field of Basic Scientific Research will expire in 1994. It provides for a Joint Commission which is chaired by Jack Gibbons and Minister Boris Saltykov (OSTP is designated as the Executive Agent). OSTP argued last year for a broad umbrella S&T agreement that would include, in addition to basic sciences, a number of memoranda of understanding between U.S. technical agencies and their Russian counterparts. Space cooperation is led by State outside of the S&T agreement. State has taken the position that they have the lead for all issues concerning Russia,

including policies for science.

Originally opposed to an umbrella agreement, State now supports such a mechanism. Circular 175 requesting authority to negotiate and conclude an umbrella agreement is currently being reviewed through interagency channels. It states that the Undersecretary for Global Affairs will co-chair a new Joint Commission with the Russian Ministry of Foreign Affairs. Schweitzer has indicated to State that OSTP could not clear Circular 175 until State and OSTP had further discussions on the chairmanship of the Joint Commission. He feels (for substantive S&T reasons) that OSTP should chair the Joint Commission just as it co-chaired the Commission under the Basic Sciences Agreement. At issue here, as in other bilaterals, is the dividing line between State and OSTP responsibilities. For the reasons given previously, I agree with Schweitzer and feel that Gibbons and Saltykov should co-chair the umbrella Joint Commission because of: (a) its emphasis on S&T and OSTP's oversight of S&T policies and interagency coordination through Ciset, and (b) the corresponding importance of assuring Saltykov's co-chairmanship and his leadership position in Russian S&T policies. Furthermore, the formal designation of State co-chairmanship would set an undesirable precedent for other hi-level S&T commissions.

Action:

1. Take steps to amend Circular 175 to state that the OSTP Director will co-chair the new Commission.
2. Meet with Eleanor Constable and John Boright early in September to review the process for coordinating S&T policy for the FSU, and specifically the revised procedures for interagency review of USG cooperative S&T activities with the FSU;
3. Meet with Jack Gibbons to get his perspective on the OSTP/Science Adviser roles and come to a decision on OSTP chairmanship of the Joint Commission.

B. Transfer of Nunn-Lugar funds to the U.S.-Russia Foundation. As part of the \$800m Nunn-Lugar effort to remove and neutralize weapons of mass destruction in the FSU, an International Science and Technology Center (ISTC) was established in Moscow to take FSU weapons scientists from their labs and support non-weapons research. Although the Center has international funding commitments approaching \$100m, the Russian Parliament indicates no intention to approve the ISTC agreement (for political reasons -- see CISAC trip report, p29). If the ISTC appears to be stillborn, consideration should be given to transferring up to \$25m from DoD to NSF for the new U.S.-Russian Foundation authorized under the Freedom Support Act sponsored by George Brown. DoD is opposed on both policy and legal grounds.

Action:

1. Assess the viability of the ISTC in consultation with NSC and State.
2. Depending on the outcome of the assessment, discuss with OMB the possibility of transferring \$25m from DoD to NSF for the U.S.-Russian Foundation.
3. Explore ways that funds pledged by third countries to the ISTC could be redirected

to the new foundation (or used to establish a network of bi-national foundations).

C. Gore-Chernomyrdin Commission. An outcome of the Vancouver Summit was the establishment of a U.S. Russian group co-chaired by Vice President Gore and Russian Premier Chernomyrdin. Its areas of interest are cooperation in energy and space, science and technology. The Technology Directorate provided OSTP participation in the preparatory meetings arranged by Rose Gottemoeller of the NSC staff (through Rich Dalbello and Jeff Hofgard. Although the issues treated are of direct relevance to the National Security and International Affairs Directorate, there was little consultation with other OSTP Directorates during the preparatory process. The results of the Gore-Chernomyrdin meeting included a joint statement on space cooperation, aeronautics, and earth observation; and joint agreements on energy and investment, cooperation in environmental observations from space and in space science, cooperation in space, a commercial space launch, missile export controls, and cooperation in aeronautical sciences. These agreements will set in motion intensive joint implementation efforts in which the National Security and International Affairs Directorate should be involved.

The Gore-Chernomyrdin exercise demonstrated a pressing need for systematic arrangements to assure inter-Directorate coordination. If there had been an Associate Director for National Security and International Affairs during the preparatory period, that person should have participated in the deliberations of the Gottemoeller committee with responsibility for involving the appropriate Associate Directors responsible for substantive areas covered; technology, science, environment and energy, national security and space. This Directorate should have primary responsibility for representing OSTP in discussions at the foreign policy level. The Gore-Chernomyrdin exercise could be a case study in developing a consultative process within OSTP that mobilizes all of its interests, talents, and experience.

Action:

1. Propose a meeting of the Director and Associate Directors to discuss the results of the Gore-Chernomyrdin meeting and the roles of OSTP and the Associate Directors in its follow up.
2. Work with the Associate Directors in developing an implementation plan and participate in interagency efforts to follow up the Gore-Chernomyrdin agreements.

D. Reform of the Russian S&T System.

Influencing reform of the existing Russian S&T system from its current "command" structure to a "bottom up" one based on merit poses a major challenge for the U.S. Reforming existing institutions will be extremely difficult, and the Russian Academy of Sciences, its institutes, and the ministry laboratories will resist. Working with Saltykov's Ministry and leveraging reform with U.S. funds (including the bi-national foundation) could have a substantial, positive impact. There will be an opportunity to strengthen Saltykov's position in promoting reform of the Russian S&T system at the OECD Conference on Russian Science, Technology, and Innovation Policies in Moscow,

21-23 September 1993 (see cable). To that end, OSTP participation could be very important.

Action:

1. Take the lead in developing U.S. positions for the OECD meeting in September on issues raised in the OECD review of Russian S&T policies, working with John Boright and experts in Russian S&T policies (perhaps as an interagency effort).
2. If possible, participate as a U.S. delegate in the Moscow meeting.

Israel

At their summit meeting early this year, President Clinton and Prime Minister Rabin agreed to strengthen U.S.-Israeli cooperation in S&T. They announced the creation of a U.S.-Israel S&T Commission to promote private sector S&T cooperation between the two countries. The creation of the Commission fulfills a promise made during the Presidential campaign. The original concept was a "hi-tech" commission, and Commerce was asked by the President to take the lead. Although the concept was expanded to an S&T commission, the institutional leadership remained at Commerce despite OSTP objections.

Action: Maintain close surveillance of the progress of the U.S.-Israeli S&T Commission, working with Mary Good to assure its success.

Intellectual Property Rights (IPR)

Disagreement within the USG over the handling of IPR in international S&T agreements has impeded progress in advancing international S&T cooperation. Despite earlier interagency agreement on an IPR annex to be attached to all bilateral agreements, the the IPR annex contains certain clauses that have caused considerable trouble in negotiations with countries of Western Europe, Canada, and Australia. Options have been tabled by State to address the so-called "equity clause" problem (if one country protects an invention and the other does not, the country offering protection gets worldwide rights regardless of the contributions made by the other side). No appropriate interagency mechanism is in place to address these options or other possible solutions.

Action. OSTP is currently involved with State in negotiating new agreements or renewals with Canada, Australia, the EC and many of its member states, including Germany, France, and Italy. One member of the staff of the International Trade Administration at Commerce poses the most significant obstacle to concluding the bilateral agreements. OSTP should initiate an interagency effort to resolve the logjam on IPR through Ciset if it is continued, or by an interagency working group.

Human Frontier Science Program (HFSP)

The Human Frontier Science Program is a major Japanese-initiated program aiming to promote basic research in cellular and molecular biology through international collaboration. It was proposed by the Japanese Prime Minister at the Venice Economic Summit in 1987 to respond to the call for Japan to increase its contribution to world basic research. During 1991, amid extensive discussions of the future of the HFSP, the U.S. came under intense pressure from the Japanese to provide financial support to the program in its next 3-year phase. The U.S. committed \$3.5m in FY93P, with \$1m each from DoE, NSF, NIH, and \$0.5m from NASA. Jack Gibbons has indicated his strong support for future funding.

Action: Sometime this fall, the U.S. will need to determine its level of support for the HFSP in FY94, FY95, and beyond. OSTP leadership will be essential to encourage the technical agencies to provide the necessary funding.

Cooperation in Megasciences

For a number of large-scale S&T programs planned or under consideration, the costs of building or maintaining large facilities and integrated, data-intensive programs have become too great for a single country. International cooperation potentially offers an answer through sharing costs, risks, and benefits. Realizing this potential will be extraordinarily difficult because of differences in national S&T policies, priorities, funding processes, and contractual preferences. Such megascience projects include: the SSC, the international thermonuclear experimental reactor (ITER), Gemini, human genome mapping, global change research, the hadron and neutrino (KAON) factory, astronomical facilities, oceanography and deep sea drilling.

For some time, members of Congress have insisted that the Executive Branch plan its megascience programs as international programs from the start to avoid international "retrofitting" as in the SSC. Alan Bromley took steps to organize working groups to examine the possibilities and practicalities involved including the feasibility of a "framework treaty" that would permit the U.S. to enter into long-term budgetary commitments with other countries (e.g., the space station problem). At a recent Congressional hearing on SSC, Dr. Gibbons said: "Although it is late in the game, the Administration plans to use every feasible measure to transform the SSC into a true international venture. Equities between nations must be addressed in this effort, and internationalization of any given project, especially one as large as the SSC, cannot be considered in isolation. It will probably be necessary to put other big science projects on the table for discussion at the same time. Projects in fusion, nuclear physics, and space, as well as other high energy physics experiments are among the candidates".

One promising step toward achieving international cooperation is the OECD Megascience Forum, organized at U.S. initiative to serve as a forum for international discussions on proposed new megascience projects at an early conceptual stage and to discuss current and proposed international arrangements for coordination and

consultation. Several countries, including Germany and the U.K., have indicated they may not agree to continue funding the Forum after its mandate ends in 1994. The U.S. has maintained that the Forum is critical to internationalize megascience projects and programs, and will need to convince OECD partners over the next year that the Forum is worthy of their continued support.

Action:

1. Take steps to follow up Jack Gibbons statement as regards the SSC and to develop a strategy and framework for institutionalizing international cooperation on megascience facilities and programs.
2. Mount an effort through Ciset (or other interagency group) to come up with detailed proposals and options for implementing a policy to internationalize both ongoing and future megascience projects.
3. Decide whether the OSTP should take the lead in organizing and conducting interagency expert meetings to prepare for the Forum discussions in January 1994 or, preferably, whether it should delegate the responsibility to specialized agencies (such as the September preparatory meeting on oceanography).
4. Follow up one or more of the preparatory meetings organized under the OECD Forum with meetings of interested member countries to work out the modalities for cost sharing and operational arrangements for a particular megascience project(s).

GATT R&D Subsidies

Negotiations to conclude the GATT Round are scheduled to resume in October. The Dunkel text for revising the GATT R&D Subsidies Code represented a compromise between what the U.S. and European negotiators. In the Reagan-Bush years, the U.S. took a hard line free trade position under which all government R&D subsidies could be open to challenge as causing adverse impacts on other countries' trading interests, and possibly subject to countervailing duties. The EC wanted a "green light" category of R&D subsidies that are permissible and non-actionable. The Dunkel text would create a "green light" category for "basic industrial research" and "applied research" provided that the subsidies meet certain criteria for government cost sharing, and would require prior notification of the size and nature of the R&D program before it is implemented.

There is a split between the USG trade community and the technology community (both industry and the USG) on the treatment of R&D subsidies, the technology community advocating that "research" should be "green lighted" without restrictions. The government technology community would go further in green lighting "development" to exempt development activities embodied in the Clinton Technology Initiative and other R&D programs such as Crada's, NIST/ ATPC, and Sematech. Within OSTP (Skip Johns), efforts are being made to define "development" that would exclude a wide scope of government support from GATT disciplines (stopping at the marketplace). I feel that the definition of "development" should be bounded by a clear policy that limits the role of the governments to the support of technological development where reliance on market mechanisms and private capital are insufficient to achieve socially desirable

abjectives (e.g., excessive technological or financial risk, fragmented industries, small business incentives).

The present state of play is that Jack Gibbons will send a memorandum to Mickey Kantor alerting him to OSTP's concerns with a view to obtaining STR support for a new U.S. position at the GGATT meeting.

Action:

1. Discuss the GATT R&D subsidies issue with Skip Johns: (a) the feasibility of arriving at a definition of "development" that will support the Administration's technology initiatives and will have the support of American industry, (b) the strategy for gaining interagency support including STR, (c) the role of the NEC in arriving at the U.S. negotiating position, and (c) the desirability of holding preliminary consultations with members of the Council on Competitiveness, and the EC and other key trading partners.

Development Assistance

The history of S&T in USAID and its predecessors is abysmal, a rocky road littered with lost opportunities. S&T should have a much higher priority within AID as key to increased productivity and economic growth without deleterious environmental consequences. A concerted topside effort will be needed to redefine the role and functions of S&T in development assistance and to redeploy the \$.5 billion budgeted for AID's R&D Bureau in order to achieve development objectives. You will recall that the Carnegie Commission Task Force under the leadership of President Carter and Rod Nichols concluded that goals and objectives of development assistance need to be reconceptualized with new legislation before S&T can be an effective tool in our development assistance efforts. This was one of the first tasks assigned to Cliff Wharton by the Sec. of State.

Action:

1. Consult with Jack Gibbons to determine whether development assistance should have a higher priority in OSTP and interagency coordination through FCCSET or its successor.
2. Follow up the State Department study of foreign assistance with a view to taking steps to assure the constructive use and integration of S&T into the AID organization, planning, and programming. You may wish to meet with Clifford Wharton discuss possible options with Rod Nichols.
3. Make arrangements to assess the AID R&D budget and to assure that longer-range R&D is not sacrificed to short-term objectives. Do what is possible to reverse the planned cuts in the Innovation Program of the NRC Board on Science and Technology for International Development (BOSTID) including the successful and innovative research program on the use of underexploited genetic resources.

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Office of the Vice President

EMBARGOED FOR RELEASE
UNTIL 10:45 A.M. EDT
THURSDAY, SEPTEMBER 2, 1993

REMARKS BY THE VICE PRESIDENT
IN SIGNING CEREMONY WITH
PRIME MINISTER CHERNOMYRDIN OF RUSSIA

Room 450, Old Executive Office Building

The Prime Minister and I have worked hard over the past two days to bring to life the vision first sketched by President Clinton and President Yeltsin at their summit in Vancouver: it is time to leave behind the vestiges of the Cold War and reach for a new partnership between the United States and Russia.

No where will this partnership be so keenly felt as in the area of high-technology cooperation. Each of our countries spent the Cold War years pouring our resources into competition. So much was achieved, but at such a high cost. Now, we can work together to advance a joint agenda in energy and space, science and technology, using our cooperation to keep costs down, husband our limited resources and work together for our mutual benefit.

Turning forty years of competition into a future of cooperation is no easy task. Our Presidents agreed at Vancouver that high-level attention would be needed to jump-start our cooperation, and their agreement was the genesis of this commission. Prime Minister Chernomyrdin and I have focused fully on beginning the jump-starting process during our two days here in Washington. Our aim is to broaden the U.S.-Russian partnership so that it encompasses not only security and foreign policy concerns, but also the evolution of an economic partnership for the future.

Nothing pleases me more than the results that we already see emerging, especially the agreements on space cooperation that we have signed here today. Everyone remembers the great firsts that each of our space programs achieved. Sputnik 1, the first human-made satellite, electrified the world when it was launched on October 4, 1957. We were equally excited when Yuri Gagarin became the first human being to fly in space in 1961. Then came the great period of lunar exploration with the U.S. Apollo program and, on the Russian side, the Luna probes.

But the agreements that we signed here today, as much as they owe to the accomplishments of that competitive era, most clearly have their roots in the Apollo-Soyuz rendezvous and docking in July 1975. It was through this project that Russian and American

space scientists and engineers, astronauts and cosmonauts first began to work together. I am very pleased to have here today General Tom Stafford and General Alexei Leonov, who flew together on that pathbreaking mission. Gentlemen, would you stand to be recognized?

The future holds more of what the Apollo-Soyuz project foretold: close work together to minimize costs and cut the time needed to do projects while achieving more than would otherwise have been possible. Let me review briefly for you the agreements that we have signed relating to space: first, the commercial launch agreement, which will give Russia access to the international launch services market; second, a joint statement on space cooperation, which defines a phased approach for cooperation on human space flight. This statement embraces the potential for cooperation on a truly international Space Station if technical and partnership considerations are met. Finally, two joint statements, one on environmental monitoring and space science and the other on aeronautics, will help us to set a broad strategy for cooperation in global environmental change as well as in the design of future aircraft.

Dan Goldin, our NASA Administrator, and Yury Koptev, Director of the Russian Space Agency, will have much to do in coming months to nail down the agenda of our joint work. I know, however, that they relish the task, and we will stand ready to help.

In many ways, the agreements on space that we signed today represent the leading edge of what we are striving to accomplish, Russia and the United States together: from broad market access for Russian high-technology goods to long-term projects to work together in complex, productive ways.

At the same time, I would like to take special note of an agreement signed today that puts an important issue behind us: the Memorandum of Understanding on the Missile Technology Control Regime. By committing to adhere to the guidelines of the MTCR, Russia is showing its readiness to be a responsible partner in the sale of high-technology goods and services. This is a welcome and important step, and I would like to recognize the hard work of Under Secretary of State Davis and Deputy Prime Minister Shokhin in bringing it to pass.

But space is not all we have worked on during this meeting. We also had an exceptionally productive series of discussions on energy matters: gas, oil and nuclear energy, as well as our efforts, on both sides, to deal with barriers to trade and investment. In this, I think the Prime Minister will agree with me when I say that we owe much to the experience and suggestions that the American business community has brought to us during these sessions. We really welcome the input of business, and expect to work directly with companies through the joint U.S.-Russian Business Development Committee chaired on the U.S. side by Commerce Secretary Brown and on the Russian side by Deputy Prime Minister Shokhin. Ultimately, it will be the American

business community and not just the American government, that supplies the capital and technology Russia needs to continue its long-term reforms.

I would like to outline a few of our accomplishments on the energy side: we will be working closely with Russia and our own business communities to complete the many U.S. private sector oil and gas deals that are ready to go. We were able, I'm pleased to say, to agree to two specific projects relating to the private sector. In one, the Overseas Private Investment Corporation will provide \$28 million in guaranty and insurance support for Texaco's \$80 million oil well restoration project in Western Siberia. In another, OPIC and the Russian State Investment Corporation are together supporting a new Investment Fund, managed by PaineWebber. These investments -- \$50 million from OPIC and \$25 million from Russia -- are for a private investment fund that is a model for the joint cooperation that we are trying to achieve.

We will work very hard to expand our energy trade and investment. We have agreed that each of our governments will name an ombudsman -- one American and one Russian -- who will work full time to identify and overcome obstacles to specific investment and trade projects. At the same time, Energy Secretary O'Leary will be working with her counterpart, Minister Shafrannik, to define new policies that will encourage cooperation in energy.

Finally, we agreed to launch an important joint study on nuclear reactor safety issues. This study will add to the fund of knowledge that has been accumulated in the past few years and will help us to plan the most productive areas for joint work on nuclear safety issues. I especially appreciate the Prime Minister's personal commitment to enhance the safety of his nation's nuclear plants.

The Prime Minister and I have agreed in the course of our meetings that the commission should specifically focus its work on two other very important subjects: the environment, and science. We will be organizing two groups to carry forward these agendas, and will see their first inputs at our next commission meeting, which will take place within the next few months. The Prime Minister has invited me to visit Russia this fall, and I look forward to doing so.

In conclusion, I would like to extend my thanks to the many people on both the U.S. and Russian side who have made this meeting possible. Mr. Prime Minister, if its beginning foretells the future, this Commission will be one of the most productive engines that we have to propel us forward into new areas of cooperation and partnership. I welcome the challenge, as I know you do, and I heartily look forward to working with you.

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Office of the Vice President

For Immediate Release

September 2, 1993

Joint Statements on Space Cooperation,
Aeronautics and Earth Observation

Vice President Al Gore and Russian Prime Minister Victor Chernomyrdin issued three joint statements today in the areas of space and aeronautical cooperation. Through our high-technology partnership, the U.S. and Russia will work to realize new technological advances, productivity gains and cost savings. These joint statements create a framework and a strategy for cooperation in these important high-technology areas.

Joint Statement on Cooperation in Space

In a joint statement signed at the conclusion of the first meeting of the U.S.-Russian Joint Commission on Energy and Space, Vice President Gore and Prime Minister Chernomyrdin agreed to combine our considerable experience and resources in space to carry out a large-scale program of scientific, technical, and technological research. Both sides agreed that significant mutual benefits could be achieved through cooperation in space science and exploration activities.

Through the joint statement, the U.S. and Russian have agreed to begin the first phase of space cooperation immediately. This phase will expand cooperation involving the U.S. Space Shuttle and the Russian Mir Space Station. A second phase will provide an interim human-tended space science capability, by utilizing a Mir module with a U.S. laboratory module and the U.S. Space Shuttle. It also will provide practical experience in the use of different transportation systems, performance of complex construction and assembly efforts, and command and control.

All planned U.S.-Russian space cooperation programs are interconnected and have the common goal of creating an effective space-based scientific research complex earlier and with less cost than if undertaken separately. The United States and Russia are convinced that a unified Space Station can offer significant advantages to all concerned, including current U.S. partners -- Canada, Europe and Japan. The U.S. and Russia will jointly develop a detailed plan of activities for such a Space Station. This plan will serve as the basis for early review and decision within each government and as the basis for consultation with their current international partners.

**Joint Statement of the Development of Cooperation in
Environmental Observations from Space and Space Science**

The Vice President and Prime Minister Chernomyrdin agreed that the U.S. and Russia will examine the enormous potential and mutual benefit of expanding cooperation in environmental

For Immediate Release

September 2, 1993

FACT SHEETJoint US-Russian Energy and Investment Agreements

Vice President Gore and Russian Prime Minister Chernomyrdin, co-chairs of the U.S.-Russian Joint Commission on Energy and Space, signed several important agreements today at the end of their two-day meeting to promote greater U.S.-Russian cooperation in energy and space. These agreements represent our joint intention to strengthen economic cooperation and significantly increase trade and investment, especially in energy-related projects. The agreements will also help to bolster Russia's move to privatize major areas of its economy and increase joint cooperation between our two governments, as well as our private sectors.

The Overseas Private Investment Corporation (OPIC) announced two major projects for Russia, demonstrating the Administration's commitment to further assist Russia's efforts to implement economic reforms. OPIC President Ruth R. Harkin and Deputy Prime Minister Aleksandr Shokhin signed the first-ever U.S.-Russian Investment Fund. This \$100 million project will support the privatization process in Russia and provide substantial equity investment to new, emerging businesses. The fund is expected to generate over five times the initial amount of investment in the Russian economy, roughly half a billion dollars, while also creating investment opportunities for U.S. businesses. OPIC will provide a \$50 million loan guarantee with Paine Webber, who will manage the fund, and the Russian Government has agreed to contribute \$25 million.

OPIC signed an additional agreement providing \$28 million in loan guarantees and insurance for Texaco's \$80 million project to restore oil wells in Russia's Western Siberia region. The Administration is hopeful this and similar efforts will help the Russians to begin rebuilding their energy sector by restoring and increasing vital oil exports.

A Memorandum of Cooperation in the Field of Fossil Energy, signed by Secretary of Energy O'Leary and the Russian Minister of Fuels and Energy Yuriy Shafranik, will facilitate cooperation in fossil energy development. Through this agreement the U.S. and Russia will work jointly in four major areas: to identify improved technologies for supplying residential and industrial energy needs; to develop environmental remediation technologies by transferring U.S. know-how and technology which may improve Russia's environmental protection measures; to conduct joint

observations from space and in space science. The joint statement highlights the importance each country attaches to bilateral and multilateral cooperation in the fields of space-based Earth observation, environmental monitoring and space science and the benefits to be gained from such cooperation by both sides.

To advance U.S.-Russian partnership in this area, we will conduct a joint study to determine the feasibility of cooperative programs in environmental observations from space and in space science. The study will be conducted by NASA, the National Oceanic and Atmospheric Administration (NOAA), and the Russian Space Agency, under the auspices of the 1992 U.S.-Russian Space Cooperation Agreement. It is to be completed by November 1, 1993.

Joint Statement on Cooperation in Aeronautical Sciences

The Vice President and Prime Minister Chernomyrdin agreed that the U.S. and Russia will undertake new cooperation in the area of fundamental aeronautical sciences. To this end, the U.S. and Russia will negotiate a Memorandum of Understanding (MOU) on Cooperation in Aeronautical Sciences between NASA and the Russian State Committee for Defense Industries (Roskomoboronprom).

Later this month, a delegation of NASA specialists will travel to Russia to meet with Russian officials and visit technical institutes which may be involved in the agreed-upon activities. The delegation will identify specific projects and joint research activities of mutual interest and discuss the potential establishment of a U.S.-Russian Joint Working Group in Aeronautical Sciences to manage the cooperative relationship. It is expected that these negotiations will be completed in time to allow the new agreement to be signed and enter into force by November 1, 1993.

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research and development for improving the production and distribution methods of non-nuclear energy sources; and to provide recommendations to commercialize and privatize Russian facilities.

EXIMBANK and the Russian Ministry of Finance signed a memorandum of understanding that will lead to an expansion of the range of exports to Russia currently financed by Eximbank. Signed by EXIMBANK Chairman Kenneth D. Brody and Russian First Deputy Minister of Finance Andrey Vavilov, the memorandum outlines the principles to be included in a Project Finance Agreement currently under negotiation which would allow EXIMBANK to expand the scope of trade relations between the U.S. and Russia to new oil and gas projects, as well as projects in other promising sectors. We believe this is one of many steps the Russians have taken to demonstrate their continued commitment to promote market reform and encourage further privatization.

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For Immediate Release

September 2, 1993

United States-Russian Joint Commission on
Energy and Space

Joint Statement on
the Development of Cooperation in
Environmental Observations from Space and in Space Science

Having reviewed the status of the Agreement between the United States of America and the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes dated June 17, 1992, the Parties agree that it would be mutually beneficial to examine expanded cooperative activities in Environmental Observations from Space and in Space Science.

Given the particular importance to Russia and the United States of their current efforts to understand the scientific basis for global environmental change and to conduct scientific exploration to expand human understanding of the origin and nature of the solar system and universe, the Parties consider further cooperation in this area as most important and consistent with the interests of both Russia and the United States, as well as the entire international community.

With this in mind, the U.S. and Russia will ask the Joint Working Groups established under the 1992 Space Cooperation Agreement to initiate a study to define and determine the feasibility of cooperative programs in Environmental Observations from Space and in Space Science. This joint study shall be pursued in accordance with the following principles:

- o joining on a mutually beneficial basis the resources, and the scientific and technical potential and experience of Russia and the United States in Environmental Observation from Space and Space Sciences;
- o committing to the full and open sharing of civil space-based and in situ data for the purposes of Environmental Monitoring and Global Change Research;
- o working with current international partners (in coordination mechanisms such as the Committee on Earth Observation Satellites), and bilaterally in the U.S.-Russian Joint Working Groups on Solar System Exploration, Astronomy and Astrophysics, Solar-Terrestrial Physics, Earth Sciences, Mission to Planet Earth (including the Subgroup on Operational Satellites Systems and Data Exchange), and Space Biomedical and Life Support Systems, and consistent with existing international obligations assumed by each of the Parties;

- o seeking to expand U.S.-Russian cooperation in Environmental Observations from Space and in Space Science with a goal to increase international cooperation to minimize cost, decrease duplication, and increase the scope and effectiveness of research in these disciplines.

The Parties hereby instruct the National Aeronautics and Space Administration, the Russian Space Agency, the National Oceanographic and Atmospheric Administration, the Russian Federal Hydrometeorological and Environmental Monitoring Service, the Ministry of Environmental Protection and Natural Resources of the Russian Federation, the Russian Academy of Sciences, and other relevant entities to undertake, in pursuance of this Joint Statement, the planned studies that will define development of the specific projects involving both countries' firms and organizations, being guided by the above principles and provisions and by existing agreements of both nations with their international partners, with a completion date for the studies not later than November 1, 1993.

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For Immediate Release

September 2, 1993

United States-Russian Joint Commission on
Energy and Space

Joint Statement on
Cooperation in Aeronautical Sciences

The United States and the Russian Federation have agreed in principle to undertake new cooperation in the area of fundamental aeronautical sciences.

As part of the U.S.-Russian Joint Commission on Energy and Space, co-chaired by Vice President Gore and Prime Minister Chernomyrdin, the two sides agreed to take concrete steps to complete the framework for new cooperative research in fundamental aeronautical sciences, utilizing the complementary capabilities, facilities and talents of each side.

The Commission agreed that cooperation will take place through a variety of mechanisms, including cooperative scientific research projects, cooperative utilization of test facilities and test articles, jointly-sponsored scientific conferences, symposia and workshops, and exchanges of data, information and documentation. Areas that were noted as particularly promising included hypersonic research, transition and turbulence, thermal protection system materials, chemically reacting flows, and composite structures and materials, including computational modelling.

In order to arrive at a concrete agreement on the framework for cooperation in fundamental aeronautical sciences, the Commission agreed that a delegation of specialists from the National Aeronautics and Space Administration will travel to Russia during the month of September 1993 for the purpose of holding technical discussions with ROSKOM OBORONPROM. These discussions will be for the purpose of identifying specific projects and joint research activities to be pursued over the next several years between the two countries. The delegations will also discuss the establishment of a U.S.-Russian Joint Working Group in Aeronautical Sciences to manage the cooperative relationship.

The Commission also agreed that following the September 1993 meeting of technical specialists, representatives will meet in Washington, D.C., for negotiations on the text of a Memorandum of Understanding on Cooperation in Aeronautical Sciences between the National Aeronautics and Space Administration and ROSKOMOBORONPROM. It is expected that these negotiations will be completed in time to permit the new agreement to be signed and enter into force by November 1, 1993.

- operating in an orbit which is accessible by both U.S. and Russian resources;
- utilizing compatible service systems, enhancing reliability of the station and increasing the flexibility of transportation and technical maintenance;
- performing activities under cooperative programs on mutually beneficial terms, and including on a contract basis the procurement of individual systems and units or the provision of services.

The first phase of our joint programs begins immediately and is designed to form a basis for resolution of engineering and technical problems. This initial phase encompasses an expansion of our bilateral program involving the U.S. Space Shuttle and the Russian MIR Space Station. The MIR will be made available for U.S. experiments for up to two years of total U.S. astronaut stay time. The number of Space Shuttle flights and the length of crew stay time will depend upon the details of the experiments to be defined by November 1, 1993. During phase one, the use of the Russian modules "Priroda" and "Spektr," equipped with U.S. experiments, could undertake a wide-scale research program. These missions will provide valuable in-orbit experience in rendezvous, docking, and joint space-based research in life sciences, microgravity, and Earth resources. It will bring to reality performance of large-scale space operations in the future. The Parties consider it is reasonable to initiate in 1993 the joint development of a solar dynamic power system with a test flight on the Space Shuttle and MIR in 1996, the joint development of environmental control and life support systems, and the joint development of a common space suit.

Subsequent joint efforts on the second phase will be directed to the use of a Russian MIR module of the next generation, in conjunction with a U.S. laboratory module and the U.S. Space Shuttle. This facility would provide an interim human-tended space science capability where significant scientific experimentation can take place in a microgravity environment and also provide practical experience gained out of the use of different transportation systems (including the U.S. Space Shuttle and the Russian Proton), performance of complex construction and assembly efforts and command and control process of orbital structure of considerable complexity. Successful implementation of this phase could constitute a key element of a truly international space station.

It is envisioned that the U.S. will provide compensation to Russia for services to be provided during phase one in the amount of \$100 million dollars in FY 1994. Additional funding of \$300 million dollars, for compensation of phase one and for mutually

agreed upon phase two activities, will be provided through 1997. This funding and appropriate agreements will be confirmed and signed by no later than November 1, 1993. Other forms of mutual cooperation and compensation will be considered as appropriate.

All the above programs are mutually connected and are considered as a single package, the main goal of which is to create an effective scientific research complex earlier and with less cost than if done separately. The Parties are convinced that a unified Space Station can offer significant advantages to all concerned, including current U.S. partners, Canada, Europe, and Japan.

The precise planning process and organization of drafted phases of joint activity will give the opportunity to benefit both countries through expanded cooperative efforts on the space station project.

The Parties hereby instruct NASA and RSA, in pursuance of this Joint Statement, to develop by November 1, 1993, a detailed plan of activities for an international space station. This will serve as the basis for early review and decision within each government and as the basis for consultations with the international partners. Upon conclusion of the process of government approval and consultation, appropriate implementing agreements will be signed. NASA and RSA will include within the plan overall configuration, volumes, and forms of contributions and mutual compensation for Russian and U.S. activities.

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Office of the Vice President

For Immediate Release

September 2, 1993

FACT SHEETU.S.-Russian Commercial Space Launch Agreement

Vice President Gore and Prime Minister Chernomyrdin signed an agreement today between the United States and the Russian Federation regarding commercial space launch services. The agreement opens the international commercial space launch market, hitherto limited to U.S., European and Chinese launch service providers, to Russia. The Russian space launch industry, with its strong performance record, should find a ready market for its services. We also believe this agreement is a first step toward Russian entry into other high-technology international markets.

The agreement establishes basic rules for the commercial space launch market concerning government involvement in such areas as subsidies, marketing inducements and corrupt business practices. Russian commercial space launch providers will be able to compete for contracts to launch up to eight telecommunications satellites, in addition to the INMARSAT 3 satellite, to geosynchronous earth orbit for international customers until December 31, 2000. Up to four launches may be of two satellites, and these may be counted as one, if the parties mutually agree that market conditions warrant such treatment. Russia will also be able to provide three launches (of seven satellites each) to low earth orbit for the Iridium system. Russian proposals for additional launches to low earth orbit will be reviewed by the parties and decided by mutual agreement as this unpredictable market segment develops.

The agreement obligates Russia to charge prices for its launch services comparable to Western prices for comparable services. Prices more than 7.5 percent below the lowest Western bid for launches to geosynchronous earth orbit would trigger consultations in which the Russians would need to explain why such a price was comparable to Western prices.

Other provisions of the agreement include information exchange, a mid-term review, annual consultations on its operation and urgent consultations on bids suspected of being out of compliance with the agreement. An "anti-bunching" provision prevents more than two launches under the agreement in a 12-month period. The agreement requires the U.S. to exercise "best-efforts" to issue export licenses for operations under the agreement, but the U.S. reserves its right to deny export licenses or impose sanctions when required under U.S. law. The parties may terminate the agreement by mutual consent.

For Immediate Release

September 2, 1993

FACT SHEETU.S.-Russian Missile Export Controls Agreement

Vice President Gore and Prime Minister Chernomyrdin signed a Memorandum of Understanding on Missile-Related Exports today, at the conclusion of the inaugural meeting the U.S.-Russian Joint Commission on Space and Energy. The agreement illustrates our mutual commitment to promoting nonproliferation and effective export controls. It provides a strong foundation upon which we will continue to build our partnership with Russia in space cooperation and other areas of mutual interest.

The U.S. and Russian reached an agreement on missile export controls on July 15. This agreement cleared the way for an expanded partnership on proliferation issues and in space cooperation. In the Memorandum of Understanding (MOU), Russia agreed to conduct its missile-related exports according to the criteria and standards of the multilateral Missile Technology Control Regime (MTCR). This formal commitment on the part of Russia met a major objective of the U.S. and the 22 other members of the MTCR. We also reached an understanding on the disposition of Russia's cryogenic rocket engine contract with India. We expect a final arrangement on this issue to be reached by the beginning of next year.

Russia's commitment to abide by the criteria and standards of the MTCR is a welcome and important step that shows its readiness to be a responsible partner in the sale of high-technology goods and services.

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For Immediate Release

September 2, 1993

United States-Russian Joint Commission on
Energy and Space

Joint Statement on
Cooperation in Space

Having reviewed the status of the Agreement between the United States of America and the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes dated June 17, 1992, the Parties note with satisfaction past agreement on the following: the flight of a Russian cosmonaut on the Space Shuttle System in 1993 and 1994, and American astronauts on the MIR station, the docking and a joint flight of these two space complexes in 1995. These activities are consistent with the national space programs of both countries and the overall development of a spirit of trust, partnership, and long-term political and scientific and technological cooperation between Russia and the United States.

Based on the agreement reached at a meeting of the U.S. and Russian Presidents in Vancouver on April 3-4, 1993 and June 17, 1992, the Parties see great promise and mutual benefit through cooperation in space science and exploration activities.

Given the particular importance for Russia and the U.S. of their respective efforts in developing a new generation of orbital stations for scientific and technological progress and human activities in space, the Parties regard further cooperation in this area as most important, and consistent with the interests of both Russia and the U.S., as well as the broader international community.

With this in mind it is the intent of the U.S. and Russia to undertake a cooperative human space flight program. Interim investigation has already indicated potential advantages of joint cooperative activities in a truly international space station program. The Parties intend to pursue such cooperation in accordance with the following principles:

- joining on a mutually beneficial basis the resources and the scientific, technological, and industrial potentials of Russia and the U.S. in space activities to carry out a large-scale program of scientific, technical, and technological research;
- working with each of our current partners, and in accordance with earlier international obligations assumed by each of the Parties under the Freedom and MIR projects;

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

August 13, 1993

MEMORANDUM FOR DISTRIBUTION

FROM: LIONEL S. JOHNS *[Signature]*
Associate Director for Technology

SUBJECT: Working Groups on Aeronautics, Space Transportation,
and Convergence of Military and Civilian Space Systems

American leadership in aeronautics and space is critical to the nation's long-term security and economic health. To maintain this leadership position, it is important to develop coherent national goals and requirements and to coordinate agency investment strategies. In order to accomplish these critical tasks, the Office of Science and Technology Policy is establishing the following interagency working groups:

- o *Working Group on Aeronautics* -- This working group will be co-chaired by the Office of Science and Technology Policy and the National Economic Council and will focus initially on Federal policies and R&D priority setting in civil aviation technologies;
- o *Working Group on Space Transportation* -- This working group will assess national civil, military, and commercial launch needs and recommend a Federal R&D investment strategy designed to meet these needs;
- o *Working Group on the Convergence of Military and Civilian Space Systems* -- This working group will examine whether or not substantial cost savings or other efficiencies might result from merging certain military, intelligence, and civilian space systems, such as weather.

These working groups will begin meeting in early September and plan to take full advantage of the considerable work on these topics that is already underway in the agencies. Please contact Richard DalBello, or his assistant, Cynthia Chase at 395-6175 to identify your agency's representatives to each of the working groups in which you intend to participate. Prior to the first meeting of each working group, your representative will receive an agenda and a draft Terms of Reference for the review.

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b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

Science & Technology Contacts for Aeronautics and Space

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Defense	John Deutch	703-693-2576
Energy	Susan Tierney	586-7644
Interior	Tom Collier	208-6956
Justice	Nancy McFadden	514-4699
State	John Boright	647-0217
Transportation	Frank Kruesi	366-7127
Treasury	Alicia Munnell	622-2633
NASA	Jack Dailey	358-2810
(b)(3)		
CEA	Joe Stiglitz	395-6947
NSC	Sandy Berger	456-2883
NEC	Bo Cutter	456-1605
OMB	Alice Rivlin	395-3888
OVP	Greg Simon	456-6231
USTR	Rufus Yerxa	395-4549

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National Aero-Space Plane (NASP)

25 August 1993

ISSUE: The NASP program is currently encountering an identity crisis. Initially conceived to develop a single-state-to-orbit vehicle in 10 years (1983-93), the program has not met expectations. Initially, DoD provided strong funding support while NASA had their allocation for NASP cut drastically each year. This year the DoD request was decreased. As a program which was Presidentially directed in past years, Congress, DoD, NASA and the involved contractors are looking to the White House for direction.

DISCUSSION: Skip and Dr. Gibbons have been supportive of the NASP program and even wrote a letter of support to Dr. Perry (atch). With outyear funding shrinking for NASP, most experts realize that the funds are not there for a ramp-up to develop an X-30 vehicle. OSTP supports focusing on a hypersonics research program which would support advancement in materials, propulsion and avionics for our aeronautics industry. Congressional support for the program is mainly focused in the House. Senate support is concentrated in high tech or aerospace status. For example, Senator Feinstein sent a letter of support for the program to Dr. Gibbons. The Senator is concerned about the California contractors involved with the NASP. (See attached brief from NASA.)

RECOMMENDATION: The program is in disarray without any clear goals or a stable funding line. We need to work with DoD and NASA to develop a clear goal for the program and a viable funding profile. In the past this has been a Presidentially directed program. DoD, NASA and the contractors are looking to the White House to provide guidance.

Marc Johansen

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

March 26, 1993

Bill
Dear Mr. Perry:

OSTP has begun to reexamine this nation's investment in aeronautics research and development. I know that over the years there has been a substantial amount of hype concerning the National Aerospace Plane (NASP). However, I believe that hypersonic research should play an important role in a balanced national aeronautics strategy because it holds the potential for significant reductions in launch-to-orbit costs and might also impact other areas in advanced aeronautics.

I would like to work with you to define how NASA and DOD could invest in a Hypersonic Aerospace Research Program (HARP) that had realistic goals and could produce real benefits for the nation. My understanding is that DOD intends to request only \$45 million for hypersonic technologies in 1994. I am concerned that with this level of DOD commitment, the NASA Appropriations Committees may decline to fully fund the NASA FY94 request for \$80 million.

Please have the appropriate person on your staff contact Lionel S. Johns, my Associate Director for Technology, to discuss how we might coordinate the NASA and DOD investments in a restructured HARP program.

Sincerely,

John H. Gibbons
John H. Gibbons
Director

Dr. William J. Perry
Deputy Secretary of Defense
Department of Defense
Washington, DC 20330

NATIONAL AERO-SPACE PLANE

- **Goal:** joint DOD/NASA program to develop and demonstrate the enabling technologies for future operational air breathing single-stage-to-orbit and hypersonic-cruise aerospace planes. This new mode of flight will enable routine, flexible, efficient, responsive space access.
- **Background: NASP**
 - is the Nation's sole focused hypersonic-technology development program
 - has been reviewed twice by the DSB, by the OTA, by the Air Force Studies Board, many times by the GAO, by the ASME, and by others
 - is making significant technical progress and is advancing many technologies (materials, propulsion, computer sciences, fuels, etc.)
 - is a "here and now" example of technology transition and spin-offs
 - is setting the example on industry/government teaming
- **Value of NASP:**
 - revolutionary vs. evolutionary improvements - the best we can do with expendable boosters is to keep up with the French
 - dual-use technologies for civil/military applications
 - increase U.S. aerospace competitiveness now and in the 21st century
- **Funding totals to date:** NASA - \$400M; DOD (primarily Air Force) - \$1.3B; industry - \$700M;for total of \$2.4B investment
- **FY 1994 budget request:** NASA - \$80M; Air Force - \$43.3M (Air Force requested \$93M; OSD reduced this to \$43.3M); total of \$123.3M
- **Status:** House Authorization: Air Force - \$80M, NASA - \$80M; House Appropriations: Air Force - TBD, NASA - \$8M (with language to revisit at conference based on the Air Force mark); Senate Authorization: Air Force - DOD determine preferred launch system, then spend up to \$30M on it, NASA - TBD; Senate Appropriations: Air Force - TBD, NASA - TBD
- **Bottom line: minimum of \$120M needed for executable program**
 - continues industry team participation (Lockheed, McD, Rockwell, P&W, Rocketdyne)
 - completes current technology development phase (especially the major, large-scale Mach 8 engine tests at Langley Research Center)
 - starts minimum planning effort for follow-on risk-reduction activities featuring continued technology development and high-Mach, subscale, unpiloted propulsion flight experiments using surplus boosters
- **Strategy:** target the NASA appropriators who are key to a successful FY 94 program; while the NASA committee staffs express support, neither has been willing recently to fund the program in light of other NASA commitments, such as the space station; both staffs have expressed the desire to have DOD fund NASP -- but they are interested in the future risk-reduction activities and have agreed to keep an open mind for FY 94; based on past performance and current rhetoric, they can be expected to appropriate no more than one-half the Air Force mark
 - most likely scenario: Air Force - \$80M and NASA - \$40M if the Administration expresses its support for the program

EXCESS BALLISTIC MISSILES

25 August 1993

ISSUE: As a result of the START agreement the U.S. now has over 400 Minuteman II assets which are being removed from operational status. National Space Policy Decision #4 (NSPD, written by the Space Council) required the DoD to consider the disposition of excess ballistic missiles and said a policy consideration must be made based on cost effectiveness, industrial base implications, and economic impact. In response to NSPD-4, the DoD has undertaken an assessment of the disposition of the missiles which includes disposal, auction, or retention, based on the NSPD criteria. The results of the DoD assessment (due early September) were to have been reviewed by the NSC and National Space Council whose functions have been transferred to the OSTP.

DISCUSSION: OSD has conducted a review and has made a recommendation to Dr. Perry. The main reviewers were Mr. Granato and Dr. Sevin, close associates of mine, who work for Dr. Deutch. Their recommendation was: [DoD retain the excess missiles and use them for government use only. Sub-orbital use does not require prior permission, but any orbital launches must be cleared on a case by case basis. In the case of orbital launches a primary factor in consideration would be whether the use would meet DoD needs in a cost effective manner compared to a commercial product. Requests from other U.S. government agencies would be evaluated in a similar manner.] Dr. Perry has signed off on this policy and it is slowly making its way to us.

The Minuteman missile cannot be taken directly out of the silo and used for launch. It requires refurbishment and in some cases restructuring, especially for space launch. Space launch restructuring is more expensive as the minuteman motors are restacked in different configurations. Martin Marietta has been awarded the contract to do these upgrades. They claim that they can refurbish a Minuteman and make it ready for space launch for about \$4-6 mil. This would result in a launch vehicle capable of putting 900 lbs into low earth orbit.

Dr. Paul Coleman of UCLA and a member of the University Space Research Association, has visited with me and approached Dan Goldin to have NASA sponsor a pilot program where NASA would buy 3 Minuteman space launch vehicles and allow a consortium of University students to launch payloads. This pilot program would supposedly demonstrate that the government could launch refurbished ballistic missiles at a large savings over commercial vendors. The pilot program would also offer access to space for customers (i.e., universities) who could not afford the current commercial prices. NASA has offered Coleman \$24 mil for the program. Currently, OMB informs me that the money is not in the budget. I have sat in meetings of the USRA where they estimate the cost of each launch to be \$ 8 mil, but they noted that there are additional costs to integrate the payload and ground support costs need to be included. Ground support costs would entail at least another \$12 mil. Nevertheless, this pilot program would have to be evaluated on a case-by-case basis for cost effectiveness by DoD.

Orbital Sciences Corp. (OSC), sees this pilot program as counter to national policy which encourages the commercial space launch sector. They also claim it is an improper federal subsidy in direct competition with a commercial business (NSPD-3). The OSC Pegasus vehicle along with complete launch services can be acquired for \$10-12 mil and it has a capability to carry 500-1000 lbs to LEO. This is at a baseline of 6 launches per year. OSC makes the point that if that launch baseline were increased to 12 per year, costs would decrease to \$7 mil. They have accepted the initial DoD policy as written. They are more concerned over the pilot program and what a case-by-case basis means.

Therefore we have two major factions here. There are users who would like to take advantage of cheaper launch costs and perhaps have the government foot part of the bill. On the other hand, there are the small payload launch vendors who see the pilot program as a threat to their livelihood. The driving factor here may be cost. Initially, potential users thought the refurbished ballistic missiles would be much cheaper than commercial alternatives. As the costs increase, there may be a small if any delta. Chairman Brown's committee is supportive of the pilot program as long as it does not directly affect commercial launch vendors.

RECOMMENDATION: We are tasked by NSPD-4 to review the DoD policy on excess ballistic missiles. The Space Launch inter-agency working group would be the natural venue to take this issue up. My tendency is to support the restrictive policy set by DoD, but we must consider the loopholes and whether the White House should encourage the pilot program or not. Once again we would work closely with Bob Bell in NSC and the NEC staff. This action is imminent with the receipt of the DoD package estimated by early Sept. Therefore, we may have to work this issue separately from the Space Launch IWG which is being established to cover space launch issues.

References: NSPD-3&4
Final Report to the President on the U.S. Space Program
The Future of the U.S. Space Launch Capability

Marc Johansen

SHORT BRIEFS ON VARIOUS ISSUES

25 August 1993

LANDSAT: The Landsat remote sensing satellite program is a joint program between NASA and DoD with DoD building the satellite and NASA providing the ground operations. The program was saved when the National Space Council in coordination with Chairman Brown, set up a cost sharing program between DoD and NASA. This program has a lot of hurdles to overcome and will demand some White House leadership, mainly out of OSTP.

REMOTE SENSING: Dual use of our classified intelligence assets is being considered by the DCI and DoD. There is a growth market for optical and multi-spectral data. Overseas competitors have a jump on us as the French SPOT offers 10 meter m/s and the Russians are offering two meter optical information. The DCI and AF are considering allowing the U.S. market to begin to offer 1 meter resolution information. This situation becomes more interesting when you consider hardware. Lockheed is attempting to set up a commercial satellite network which would offer 2 meter resolution. Other companies are interested in the same course of action. Countries, such as the UAE, are interested in buying a sensor satellite or a ground station to locate in their country. This issue will be a hot topic involving OSTP and the NSC.

CONVERGENCE: Currently a joint NOAA/DoD study is considering the feasibility of converging the DoD polar weather satellites (Defense Meteorological Support Program) and the NOAA weather satellites (POES) into one similar satellite system that could serve both agencies. Sen. Nunn has been a strong supporter of the idea and their Defense Bill reflects this. NOAA would like to take over the management and operation. GE builds both satellites but there are some different sensors on each. DoD is reticent about relinquishing command but do support the establishment of one assembly line. The recent failure of a NOAA POES satellite will make DoD less willing to give up oversight of the assembly process. This issue is being assigned to be worked in one of our IWGs with Bob Watson in the lead and us providing support.

Marc Johansen

GLOBAL POSITIONING SYSTEM

25 August 1993

ISSUE: The Global Positioning System (GPS) has been extremely successful for both the military and civil users. Now there is pressure from Congress and DOT to further civilianize the system. Currently, DoD and DOT are meeting to consider the future of GPS. Issues include: whether GPS should be operated and managed by a civilian agency (instead of the Air Force), should user fees be charged to civil customers, should selective availability be granted to all users, and how to encourage commercialization of the system. Attached is an excellent editorial on GPS by Scott Pace, who assists OSTP.

DISCUSSION: GPS cost over \$10 bil to acquire and costs an annual \$500 mil to operate. It has been a very successful system and was invaluable to our forces for navigation in Desert Storm. A GPS signal of 100 meters accuracy is available to any user for free. A selective availability signal with 16 meters accuracy is available to military and selective users with special receivers. There are 24 satellites in the constellation in polar orbits of about 12,000 nm. A commercial sector has grown up around producing GPS products, especially receivers. Unfortunately, the commercial race now includes foreign companies.

The GPS is such a valuable system that some agencies have developed means to work around selective availability. The Coast Guard has developed a differential system which uses a fixed site to "descramble" the universal GPS signal and presents accurate signals of under 16 meters. These fixed sites are located in strategic waterways. The FAA is proceeding to introduce differential GPS receivers on U.S. airlines, to allow precision approaches anywhere in the CONUS.

Sec. Pena called for a joint DOT/DOD study on the future of GPS. The task group is considering civilian operation of the system (pros and cons), as well as the issues mentioned in the first paragraph. The group should be finished by October. We have met with members of the task group and it is clear they are focusing on GPS management. Commercialization of GPS or dual use is not a priority effort.

Sen Exon on the Senate Armed Services Committee is concerned about what he sees as American efforts to build a costly satellite system benefiting foreign entrepreneurs. He has called for a government effort to consider taxing users and also has proposed a civilian management agency to control the GPS. The SASC also has language in their report granting \$5 mil to the National Academy of Sciences and the National Academy of Public Administration to perform an independent analysis of GPS. We have Sen. Exon's speech, letter and our response on file.

Gen Horner (Commander Space Command), in his visit with Dr. Gibbons, made it clear that he is concerned about releasing selective availability to our foes and enabling them to accurately target us. He also challenged the idea of moving GPS operations out of the Air Force. He explained the cost effectiveness of Air Force management and said that it was still under civilian control as Sec. Aspin is the Boss.

European interest is high as the Airlines would like to incorporate GPS but there are fears over the U.S. military turning the system off. They are also aware of Sen. Exon's concern over not charging foreign users and have made some attempts at looking at the Russian GLONASS system. GLONASS has an availability accuracy of 20-30 meters, but there are only 13 on orbit and the Russians are having a hard time getting to the 24 on orbit constellation they need due to short lived satellites (2 years or less in comparison to over 5 years for GPS).

RECOMMENDATION: GPS includes the military, civil and commercial sectors. There is great potential for dual technology from and economic growth in GPS products. Little is being accomplished in encouraging U.S. companies to take the lead. We should monitor and then analyze the results of the DoD/DOT study on the future of GPS. We should then work closely with the NSC to develop a roadmap for GPS, including a determination on whether SA should be discontinued and whether the President should issue a statement that GPS will never be turned off to civilian users. Another aspect would be meeting with business leaders to determine how the U.S. can lead the market in GPS products. This could be accomplished by soliciting views from industry and cognizant industrial organizations.

Marc Johansen

Scott Pace
GPS: Challenged by Success

Orbiting 12,000 miles above the Earth, a network of Defense Department satellites are of increasing interest to U.S. industry leaders and policy-makers. The Global Positioning System (GPS) is the result of 25 years of work and more than \$10 billion dollars; roughly equivalent to building the now-defunct National Launch System. Before and after their stunning debut in the Persian Gulf War, commercial GPS receivers have been selling at double-digit rates. GPS receivers are used by hikers, boaters, pilots, surveyors, computer network managers, and the growing geographic information systems (GIS) market. Worldwide commercial sales total close to a billion dollars with U.S. firms in the lead.

After the Soviet downing of Korean Air 007 in 1983, President Reagan offered GPS signals to the world community, free-of-charge, in the hopes of avoiding such tragedies in the future. At the time, only a few GPS satellites were in orbit and navigation services were not available worldwide and certainly not 24-hours-a-day. In the late 1980s, the GPS constellation grew and coverage spread until it was completed this year. With greater coverage, more and more commercial users discovered the benefits of satellite-based navigation and position location and sales took off. Frankly, I had been aware of the GPS program for years, but did not recognize its commercial value until I started seeing the revenue numbers on my desk at the Commerce Department.

In recent months, the GPS program has found itself in a Washington-driven controversy, not because of failure, but because of success. On April 30, Senator James Exon (D-Neb.) gave a floor speech in which he called for a review of the policy of "providing free GPS signals to the world." This created concerns that in the struggle over the President's budget, the United States would soon establish a tax on GPS users. The Senator's speech made the front page of *Lloyd's Ledger*, a respected maritime industry newspaper in London, and U.S. manufacturers reported stalled sales as foreign buyers waited to see what the United States would do.

When the Senate's Fiscal Year 1993 Defense Authorization bill was sent to conference on July 28, it called for a \$5 million study by the National Academy of Science and the National Academy of Public Administration on whether GPS should continue to be managed by the Department of Defense. Aside from the merits of this question, \$5 million exceeds the total for all R&D contracts awarded by the National Institute of Science and Technology in 1992. In the meantime, the European Commission is considering support for the Russian's satellite navigation system, GLONASS, in part from concerns about the stability of U.S. policy toward GPS.

After an initial flurry, the Joint DOD/DOT Task Force on GPS has settled down to examine the operational, technical, and institutional implications of the increased civil use of GPS. In contrast to confrontational Congressional and foreign rhetoric, the Task Force is quietly addressing specific questions about how the civil and military

communities can better work together to exploit the fantastic potential of GPS. Unfortunately, the GPS industry and its user communities are only indirectly represented at this point and there is a common misperception that civil use of GPS is synonymous with the needs of aircraft. The airlines can and will benefit greatly from worldwide use of satellite navigation, but aviation sales represent only a small portion of growing worldwide GPS applications and equipment sales.

Just as the full potential of GPS is much greater than its military applications, so are its commercial uses much greater than any one industry. GPS is not just a space system, but a founding member of what is now being called a National Information Infrastructure. GPS is not some DOD project to be "converted" to civilian use now that budgets are tight, it is in civilian use now and commercial industries already have confidence in the skill and integrity of GPS' DOD managers. This is vital quality for a utility that people trust with their lives! This trust does not, however, extend to the political debate and process surrounding GPS.

As a first step toward reassuring U.S. and foreign buyers of GPS products, the Congress should let the Joint Task Group finish its work before commissioning its own studies. If something is broke - let's fix it, not study it.

Second, the completion of the GPS constellation provides the White House with an excellent opportunity to define the future of GPS which could set a constructive tone for other dual-use technologies, link space to national information and infrastructure needs, provide policy stability to U.S. industry, and encourage export sales.

Third, the GPS story is still being written and none of us should assume that we know how it will all turn out. U.S. technology and economic policy should not preclude or deter other satellite-based location systems from competing commercially - be they based on geostationary, medium orbit, or low-earth orbit satellites.

If we fail to encourage the commercial growth of GPS, if we decide to add new taxes to an emerging industry, if we allow unstable policies and management to erode our lead, the outcome will be familiar. Do you remember the TV ad by AT&T in which Tom Selleck's voice says that it will be possible to drive cross-country without a map? That's a sample of GPS and GIS blending to create a new consumer product. Unfortunately, I saw a similar TV ad two years ago featuring a young couple using a car-mounted GPS and CD-ROM map. It was in Japanese.

 Scott Pace works for the RAND Corporation in Washington, D.C. He is the former Deputy Director of the U.S. Commerce Department's Office of Space Commerce.

SPACE LAUNCH POLICY

25 August 1993

ISSUE: There is a desperate need for a cogent national launch policy which focuses on an achievable and affordable roadmap to improve our access to space. Internationally, the U.S. is becoming non-competitive against foreign launch companies who offer cheaper launch services. The DoD keeps our major launch vendors in business as it is national space policy that DoD payloads must be launched on domestic launchers. Both the DoD and NASA are interested in improving launch efficiency. The commercial sector is very interested in launch improvements but is looking for policy direction and funding assistance before a full commitment is made. Federal agencies and the commercial sector are calling for White House leadership to provide direction. Congress has not been supportive of any costly new ventures to develop a new launch system. Congressional committees are divided over the best means to improve U.S. launch capabilities. With OSTP taking over the duties and responsibilities of the National Space Council, this is an issue which demands OSTP leadership. Since the majority of space launch and improvement is in DoD, the National Security and International Affairs Directorate should take the lead in this issue working closely with the Technology Division.

DISCUSSION: A number of studies in the past 7 years have all recommended that a new launch system was required (Ride, Augustine, NRC, Stafford, VP Adv. Group). Unfortunately, the program cost \$10-\$15 bil and a clear statement of requirements between DoD and NASA took awhile before a consensus was reached. The high cost and initial unclear requirements caused problems on the Hill. The NASA Appropriators zeroed the program last year and the DoD Appropriators followed suit. Over \$500 mil has been spent mostly by DoD but a significant amount was allocated by NASA on this joint program (called the New Launch System). The NLS was based on current advanced technologies to develop an improved expendable launch system with a focus on the 20,000 lbs. to low earth orbit capability.

The sad fact is we are relying on launch vehicles which were initially built in the 1960's as ICBMs. The ground launch infrastructure is inefficient as well. Commercially, we have decreased from launching 90% of the available payloads to less than 30% in a decade. The success of the French Ariane, and to a lesser extent the Chinese Long March, have caused this decrease in the U.S. market share. The cost per pound (\$10,000-16,000) is too high to allow a large open market to flourish. With the entry of Russia into the market, our commercial launch vendors are further at risk.

Currently both DoD and NASA recognize that this is a time of transition. Both are waiting on some clear guidance from the White House. The Air Force only put in \$53 mil to analyze options for a "Spacelifter" in FY94. NASA has about \$35 mil which they are using to support various programs which could support improvements in our Expendable Launch Vehicles or lead to a new vehicle. The BMDO has finished funding a prototype of a Single Stage to Orbit (SSTO) vehicle which is scheduled to have a sub-orbital flight in late

August. This vehicle (the Delta Clipper) was built for \$68 mil by McDonnell Douglas. It has a long way to go to put payloads into space, but it has a lot of potential to decrease the cost of launch. The Delta Clipper folks have some support on the House Armed Services Committee where they gave the program \$75 mil and moved it to ARPA.

Sec. Aspin has directed a bottom-up review which includes space launch. There are currently three options being considered. 1) Incrementally improve our current launch systems 2) Also support the acquisition of a Spacelifter based on ELV principles 3) Also move out and support a revolutionary system for cheaper access to space. My inputs, and the budget picture, indicate option 1 will be forwarded from Dr. Deutch to Dr. Perry and Sec. Aspin. However, this review will reflect the current budget picture and will not consider overall national policy for future space launch capability. As General Horner stated, DoD will get their launches no matter how inefficient the system is. Once the bottom-up review is forwarded to OMB, OSTP should become involved in considering a national launch policy which involves civil, commercial and military requirements.

RECOMMENDATION: In coordination with OMB, the NSC, and NEC, we need to establish an inter-agency group to work this issue. The IWG would include DoD and NASA as primary members and DOT/DOC to provide input on commercial concerns. It would also be beneficial if a private sector advisory group could be formed to provide input to the IWG. Finally, polling the involved congressional committees on this issue would be important to find if there is any consensus on this issue. We already have put together a memo establishing a working group on space launch.

Marc Johansen

SPACE DEBRIS

25 August 1993

ISSUE: For the past several years there has been a basic disagreement between State, DoD and NASA on policy for Space Debris (SD) and Space Nuclear Power (SNP). The most contentious area was SNP, though to me the bigger issue is SD. For 3 years the agencies could not reach a consensus on an USG position to take to the U.N. Disagreement was focused on SNP, with DoD and NASA resisting any U.N. restrictive language, while State was more willing to negotiate. As a result, our delegates were ill prepared for the Committee on the Peaceful Uses of Outer Space (COPUOS) meetings. Also during this time, the U.N. voted in some restrictive language on SNP, which passed easily as we did not have our act together. Also, the House subcommittee on Space has tasked OSTP to prepare a plan on space debris to be submitted by October 1994. There is the possibility that a similar action could take place on SD. Restrictive measures on SD, if not clearly defined, could cripple our launch industry. There is a need to define our national policy, determine what the Administration's position is, prepare for the next U.N. meeting in February, and piggyback on this activity to put together a plan on SD in response to Congress. This paper will focus on Space Debris as Fred has prepared one on SNP.

DISCUSSION: Space Debris is a growing problem, especially considering a slowly growing population and the concern over vulnerability of the future space station. There are a lot of different statistics about how many pieces are in orbit and the likelihood of strikes on satellites. Probabilities of debilitating strikes are very small at the present but with the specter of a vulnerable space station, international interest has peaked.

To prepare for the COPUOS meeting last June, I established an interagency working group last February which included DoD, DOT, State, DOE, and NASA. My co-chair was Steve Jones who works for Bob Bell in the NSC. Our goal was to establish an USG position to present to the U.N., to avoid a push to put SD into the Legal Subcommittee where restrictions would be considered, to keep both topics on the agenda for consideration by the Science and Technology subcommittee in Feb. of 94, and to establish a working group that would prepare for the S&T meeting and propose policy options for the Administration.

The working group was successful in presenting a united position to the U.N. and enlisting our allies. The COPUOS accepted keeping SD and SNP on the agenda for the S&T subcommittee meeting in Feb. 94. As a member of the delegation, I was involved with negotiations to keep SD out of the Legal subcommittee, which fortunately (thanks to the U.K., Germany, Japan and France), was the final result. SNP was not an issue at the U.N. and it was put on the agenda for the S&T subcommittee meeting as well.

Several SD studies have including ones by the NRC, OTA and DoD. In response, the U.S. has accomplished a great deal in cutting back on causes of space debris, such as venting fuel to avoid explosions, engineering separation mechanisms with less collateral debris, deorbiting spent satellites, and enhancing tracking and cataloging techniques. NASA is sponsoring a study by the NRC on SD. I spoke to the group and requested their assistance in preparing a briefing for the U.N. which presents the U.S. as the world leader in mitigating and tracking space debris. I also requested that they prepare a proposal for an international effort which would unite the technical countries in an effort to track and catalogue all space debris possible. They were eager to assist.

Section 309 of the NASA House Authorization Bill, requires OSTP in coordination with NASA, DoD and State to submit a plan to Congress within one year which proposes operational procedures to minimize creation of orbital debris, proposes a schedule for incorporation of standards for all U.S. space activities (which decrease debris formation), and develops an international agreement on the control of orbital debris. This would be a longer term effort which would build upon the USG position to the U.N. At this point, it is not clear if the Senate will approve this language. It is non-contentious, so there is a probability it will pass.

Some concerns should be explained. The space launch industry is concerned about increased costs if restrictions on causing space debris are adopted. DoD does not want to reveal their sensor capabilities in a worldwide effort to track SD. DoD is also concerned about other countries tracking our classified satellites and then sharing that information. Nevertheless, this is a moving train and we must grapple with the issue.

RECOMMENDATION: The National Security and International Affairs Division would have the lead on the SD effort due to DoD involvement and international concerns. The IWG has worked well. Whether to formalize the IWG under the OSTP S&T Council or another body remains to be seen, as an ad hoc group it has worked well. I have received many calls asking when we will meet again to begin to prepare our presentation to the U.N. We plan to meet in Sept. I have requested NASA to write a terms of reference for the group outlining our goals. Essentially, we would have three major goals. To develop a presentation for the U.N. meeting in Feb., to develop a long term Administration policy, and to prepare a response to Congress. Such issues as national policy on mitigation techniques, avoidance of creating SD, and international cooperation would have to be addressed.

Marc Johansen

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Divider Title: _____

FUTURE OF ECONOMIC INTELLIGENCE

BACKGROUND

The role of the Intelligence Community (IC) in support of economic competitiveness continues to generate a great deal of interest throughout the policy and intelligence communities. Over the years the Intelligence Community has devoted significant resources to analyzing international economic issues. In light of changing world events, many policymakers' priorities have shifted dramatically and greater emphasis must be given to more non-traditional areas. These areas include, not only economic issues, but also environmental, S&T, and trade issues. As the IC reorganizes to adjust its collection and analysis efforts to respond to these changing requirements, it needs a coordinated strategy regarding support to a broader range of consumers.

ISSUE

What is the future role of the IC in support of policymakers? How can the IC best reach out to consumers to effectively respond to their unique requirements? How does the U.S. effectively guard against foreign intelligence threats to U.S. economic interests? What changes are need in the Intelligence Community's collection, analysis, and reporting methods to effectively respond to changing consumers and issues?

STATUS

A National Security Review was commissioned to answer questions regarding the Intelligence Community's strategy to support economic and non-traditional policymakers. A first draft of this review (ref 1) is completed and currently being reviewed by senior NSC staff. The review was drafted by a senior IC staffer with consultation from a relevant group of consumers, including OSTP. The draft was circulated to all participants for comment before being forwarded to the NSC Director. Once the review has cleared Tony Lake's desk, it will be sent out for interagency review.

ACTIONS

Once released, OSTP will be requested to review and comment on the studies content and recommendations. The review contains recommendations for the creation of several standing working groups to articulate changing requirements and priorities and to coordinate policy. OSTP is currently listed as participants on these working groups. This review is the first step in an evolving process to ensure that the IC is responsive to consumers needs. Involvement in the working groups, in addition to the existing liaison relationship, should ensure that OSTP's requirements are satisfied.

1. Draft National Security Review (TS)

NUCLEAR TESTING MORATORIUM AND UPCOMING COMPREHENSIVE TEST BAN

BACKGROUND

On July 3, 1993, the President announced that his Administration had completed its review of U.S. policy on nuclear testing and a Comprehensive Test Ban (CTB). The Administration determined that the nuclear weapons in the U. S. arsenal are safe and reliable. Additional nuclear tests could help us prepare for a CTB and provide some additional improvements in safety and reliability. However, the President determined that these benefits would be outweighed by the price we would pay in conducting those tests now - - through undercutting of our nonproliferation goals. The President has therefore decided to extend the current moratorium on U.S. nuclear testing at least through September of next year as long as no other nation tests and proceed with talks preparing for a CTB in 1996. An initial round of bilateral talks have already been concluded. A second round of bilateral talks are scheduled for the fall. This may be followed by an informal Perm-5 meeting before years end. Formal negotiations for a CTBT could start in January 1994 at the Disarmament Conference. The preparation for this conference will be handled in the IWG once the monitoring paper is completed.

ISSUES

There are two key issues which are being addressed in preparation for CTB discussions. The first addresses the requirement for developing non-nuclear methods for testing reliability and safety of the U.S. nuclear arsenal. DoE has stated that the cost of developing the non-nuclear testing methods may be almost as costly as current testing. Due to the security considerations, it would be inappropriate for international cooperation in the development of these tests. The Department of Energy is taking the lead on this issue. The second issue is to assess U.S. capability to monitor and verify a CTB. There are several key questions which include data sharing, cost, and level of authority granted to an international organization that will require multilateral negotiation. International cooperation is currently underway with respect to utilizing seismic stations for monitoring. The Intelligence Community is charged with providing the monitoring assessment.

STATUS

Since the Presidential Decision Directive (PDD) (ref 1.) was just signed out, both DoE and the Intelligence Community are in the early stages of their work. The Department of Energy has begun work on the study of alternative testing methods called "safeguards". Since DoE has major equities tied to these programs, including many jobs at DoE labs, it is essential that any results or recommendations receive a technical and unbiased review. I believe OSTP should review the study and if required, suggest that a critical review be done. Similarly, the results of the CTB monitoring study will have major impact on the U.S. plans and strategies

during the formulation of CTB language. With declining budgets and the increased complexity of monitoring low-yield testing, it is unlikely that a totally satisfactory answer will be found. It will be necessary for OSTP to review and advise senior policymakers on the technical viability of the monitoring options to ensure all appropriate issues and possibilities are included.

ACTIONS

Due to the highly technical nature of these issues OSTP should play an important role in the critical review of key technical aspects of these issues. Although OSTP was originally excluded from interagency discussions on this issue, once engaged, OSTP raised many technical issues and concerns that ultimately impacted the final decision. Since the lead agencies are currently conducting studies on both testing and monitoring, I believe that appropriate OSTP staff should be briefed on the individual studies in the hopes of isolating potential obstacles and to plan an effective strategy to raise these issues as they proceed through the formal decision process. Due to the complexity and political sensitivity of these issues any contentious issues should be flagged at the earliest possible time to allow additional analysis.

1. PDD on Nuclear Testing and CTB (SECRET)

NATIONAL SECURITY AND EMERGENCY PREPAREDNESS TELECOMMUNICATIONS

BACKGROUND

The Director, OSTP, is charged with the responsibility to direct the exercise of the President's war power functions under section 606 (a, c-e) of the Communications Act of 1934, as amended, and delegated by Executive Order 12472 of April 3, 1984, "Assignment of National Security and Emergency Preparedness Functions." These responsibilities are roughly divided into two categories: non-wartime, and wartime emergency functions. In a non-wartime situation, when required, the Director would carry out his responsibilities to advise the President through the Joint Telecommunications Resources Board (JTRB) which he chairs. The JTRB's membership includes: DoD (Assistant Secretary of Defense C3I), GSA (Commissioner, IRMS), NTIA (Assistant Secretary of Commerce for Communications and Information), FCC (Defense Commissioner), FEMA (Assistant Associate Director for IRM), and NCS (Manager). In a wartime situation, and when required, the Director would direct the President's war powers to establish priority and preference and to allocate resources through the National Telecommunications Management Structure (NTMS). The NTMS is to provide a comprehensive, survivable, and enduring management capability for initiating, restoring, and reconstituting the nation's telecommunications resources in the event of national emergency, including nuclear war.

ISSUE

Determine future role of OSTP in fulfillment of directed responsibilities formerly assigned to the National Security Affairs Division. Establish staff responsibilities for keeping the Director prepared to execute his emergency preparedness obligations.

STATUS

This account has been inactive since John O'Neil's departure in July 1993 from the National Security Affairs Division. In the past, these duties accounted for approximately 50% of Col. O'Neil's time. He participated in and represented the Director at a variety of telecommunications management activities at the national and regional levels of the federal government, involving some 27 departments and agencies. These activities included:

- exercises involving National Security and Emergency Preparedness (NS/EP) telecommunications issues
- guide development, training, and employment of JTBR, NTMS, and other national level structures

- participation in a number of interagency fora dealing with federal response to a variety of disasters
- chaired FEMA task force on training and exercises
- functioned as Executive Secretary of JTRB
- monitored all NCS activities to ensure Director fulfills all legal responsibilities
- coordinated telecommunications efforts with OMB and NCS.

ACTION

A meeting has been scheduled with the National Communication System (NSC) and the Defense Information Systems Agency to brief OSTP staff on the roles, responsibilities, and capabilities of these organizations. After the meeting, now scheduled for September 20th, an inhouse review should be conducted to determine how to most effectively carry out OSTP's responsibilities in this area. I believe this is the most effective way to establish OSTP's future plans in this area.

References

1. Proposed agenda for 20 September meeting at NCS
2. The Communications Act of 1934
3. Executive Order 12472, "Assignment of National Security and Emergency Preparedness Telecommunications Functions," April 3, 1984.

PROPOSED AGENDA
FOR
DR. JOHN GIBBONS
DIRECTOR, OSTP

TIME ALLOTTED	TOPIC(S) OF INTEREST
	Depart OSTP
30 Minutes	Arrive DISA HQ 701 South Court House Road Arlington, VA 22204-2199
15 Minutes	Office call with LTG Short
	NATIONAL COMMUNICATIONS SYSTEM (NCS) PROGRAMS
10 Minutes	NCS Introduction
50 Minutes	National Coordinating Center for Telecommunications Briefing and Tour
	o o NCC Role in Federal Disaster Response
	o o NCS Support to Joint Telecommunications Resources Board
	o o Tour of NCC
	o o Tour of Secure Video Teleconferencing Center
40 Minutes	National Telecommunications Management Structure (NTMS) Implementation - CLASSIFIED
	o o NTMS Concept and Program Status
	o o Support of OSTP during wartime emergencies
	o o Response to OSTP tasking to expand NTMS for all hazards
20 Minutes	NCS Wrap-up/Discussion
	DEFENSE INFORMATION SYSTEMS AGENCY BRIEFINGS
30 Minutes	DISA Overview
30 Minutes	Tour of Network Management Operations Center (NMOC)
	Depart DISA Headquarters
30 Minutes	Arrive OSTP
TOTAL TIME:	4 hours, 15 minutes (includes travel time to and from DISA HQ)

Future Ban on Production of Fissile Materials for Weapons

1. Issue:

President Clinton has announced a nonproliferation policy which elaborates a number of risks associated with the build up of excess fissile materials. A key part of this policy is a multilateral convention banning the production of highly enriched uranium and the separation of plutonium for weapons or outside of international safeguards. The U.S. has already taken some steps to deal with this problem including an agreement to purchase HEU from Russia which will be blended down for reactor use in peaceful nuclear programs. An immediate task is to prepare agreed talking points on the U.S. policy and its implications for international cooperation.

2. Discussion:

An interagency working group (IWG) chaired by State is scheduled to work after Labor Day to discuss initiatives and issues related to this new policy. State PM has established an informal group consisting of individuals from NSC, DoE, OSD, ACDA, and OSTP to write and review issues papers in hopes of jump starting the IWG process. It is focusing on the following four issues:

- Banning production of HEU and plutonium
- U.S. decision to unilaterally declare plutonium excess
- International management and storage of plutonium
- Options for plutonium disposition

The DoE and State draft issues papers are currently being circulated within the informal ad hoc group for comments as well as for general comments on the overall direction on the papers. State will integrate the comments and the papers will be provided to the IWG as a point of departure for further discussions. These issue papers are not meant to represent a coordinated interagency effort. OSTP will have additional input throughout the IWG process.

Additional sub-issues are included in Frank Van Hippel's list of issues: (a) verifying an end to the production of fissile material for weapons (including the question of fissile material in naval propulsion reactors; (b) nuclear warhead/materials data exchanges and inspections; (c) a possible DoE policy to keep open the option for reusing in weapons surplus weapons materials recovered from U.S. warheads, (d) fueling research reactors with non-weapons-grade uranium, (e) the future of spent-fuel reprocessing in Britain, (f) spent-fuel disposal (see enclosed description of these issues).

3. Action:

We are in the process of reviewing the issues papers in consultation with Frank. OSTP involvement in the ad hoc group will help to isolate key issues and assist our preparations for the IWG deliberations. We will need to consider whether the additional issues raised by Frank should be introduced into the IWG process. We should continue to accumulate essential background material on other critical issues to be addressed by the IWG including tritium production and plutonium transmutation and storage. The OSTP (with the NSC) will need to play an active role in developing the Terms of Reference for the IWG study and in shaping its policy outcomes and the talking points for discussions with our European partners.

References

1. Draft issue paper. Review of Options for Plutonium Disposition (C)
2. Draft issue paper. International Plutonium Management
3. Draft issue paper. Strengthening Controls on and Limiting Excess Plutonium (C)
4. Draft issue paper. Convention Banning the Production of HEU and Plutonium for Nuclear Explosives or Outside of International Safeguards (C)
5. C. D. West and D. K. Wilfert, "Reduced Enrichment Fuel-Performance Penalties, Costs, and Benefits for the ANS Reactor," Oak Ridge National Laboratory, ORNL/M-550
6. M. M. Miller, "Nuclear Submarines and their Implications for Weapons Proliferation," M.I.T. Study
7. NSC Memo, Nonproliferation and Export Control Policy (S)

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Divider Title: _____

Space Nuclear Power (SNP)

ISSUE: Space nuclear power policy is in a state of disarray. These technologies have been strongly tied to space weaponry over the last decade. Recent movement in the SNP area has been towards cooperation with the Russian Federation. Because of this agencies have asked for policy determinations on new initiatives. A Presidential Directive assigns OSTP responsibility for assuring safe space nuclear use. An INSRP (Interagency Nuclear Safety Review Process) is monitored by the National Security Section for the Director. The US is expected to present our policy (mainly safety) in a February 1994 United Nations meeting.

DISCUSSION: A review of Civil and National Security requirements for space nuclear power technology indicate that this is not an important near-term technical area. Nevertheless, it receives regular White House attention because of 1) the associated safety, environmental, arms control and proliferation concerns and 2) program office desires to conduct joint activity with Russia.

The Soviet Union and the United States are the only two nations to use nuclear power technology in space. The former Soviet program was quite extensive, and well advanced over most US capability. US program office desires to work with Russia result from a combination of trying to take advantage of Russian advancements, and a desire to salvage decaying programs by establishing linkages with a prominent country.

Domestically, the principle agencies are the DOE, DOS, NASA, EPA and DoD. Several open action items are currently in the EOP. These are 1) the future of DoD's Topaz program, 2) a DOE requests to purchase Russian Plutonium, 3) a DOE request to form a space nuclear council with the Russian MINATOM and 4) establishing the USG position for the February United Nations COPUOS (Committee On the Peaceful Uses of Outer Space) meeting.

RECOMMENDATION: The Office can address space nuclear issues on an individual basis, however a fall broad policy review is preferred. This would provide needed agency guidance to either proceed with, restructure or halt current initiatives. The review should be conducted with the NSC, and should aim to rewrite Presidential Directive/NSC-25, which is the primary SNP policy document.

References:

PD/NSC-25, Dec. 14, 1977 "Scientific or Technological Experiments with Possible Large-Scale Adverse Environmental Effects and Launch of Nuclear Systems

into Space"

DOE April 2 ltr to Dr. Johns asking for comments on DOE/MINATOM group

DoD June 14 ltr to Dr. Gibbons, Mr. Bell on DoD Topaz program

DOS July 28 ltr to Richard DalBello suggesting SNP policy review

Cooperative Threat Reduction

Issue: A centerpiece of Administration strategy to reduce national security threats is the Cooperative Threat Reduction (CTR), or Nunn-Lugar program. The START commitments of Ukraine, Belarus and Kazakhstan to rid their territories of nuclear weapons, and of Russia to reduce its arsenal by some three-fourths, requires the dismantlement of perhaps over 18,000 warheads. This is a monumental task, especially for states experiencing severe economic, political and security changes.

Discussion: The previous administration moved slowly to advocate and implement the Nunn-Lugar program. New initiatives have crisply defined and assigned responsibility, enabling the program to achieve its goal of working with Russia and the other states of the FSU to accomplish the safe and secure dismantlement of weapons of mass destruction.

Implementation of CTR is broken into three stages -- diplomacy, policy and execution. Diplomacy is handled by Ambassadors Goodby, Talbott and the Secretary of State. Policy to guide development, planning and concluding Nunn-Lugar agreements is set by the Under Secretary of Defense for Policy USD(P) in coordination with other executive branch policy agencies. Execution is tasked to the USD(A). Noteworthy is the administrative responsibility of the ASD(AE), which has recently had both the Defense Nuclear Agency (DNA) and the On-Site Inspection Agency (OSIA) consolidated under a DAS(AE) for CTR.

A variety of accomplishments have resulted from this effort. Sustained negotiations and technical exchanges have resulted in doubling the size of the Nunn-Lugar effort in Russia. Three new agreements were signed this week (Storage Facility Design; Nuclear Material Control and Accounting and Physical Protection; and Strategic Offensive Arms Elimination). FY94 appropriations are expected to contain an additional \$400M as a DoD line item (for the first time), which will facilitate future activity.

Recommendation: The government is efficiently organized, well motivated and led in this area. Good people have the ball -- they should continue running with it. Recommend OSTP stay advised and assist if required. In addition to Assistant Secretary's Ashton Carter, Harold Smith (AE), and Ambassador James Goodby (SSD delegation leader), key points of contact are Dr. Susan Koch, Senior Advisor to the Assistant Secretary for Nuclear Security and Counter Proliferation, and Dr. John Birely, DAS(AE) for CTR. Recommend meeting with both these individuals in order to express an OSTP desire to stay informed, and assist as needed.

References:

- o Statement of Dr. Harold Smith, Assistant to the Secretary of Defense (Atomic Energy) before the Senate Armed Services Committee Hearing on Cooperative Threat Reduction, June 23, 1993
- o DoD Report to Congress on Program Activities to facilitate weapons destruction and nonproliferation in the Former Soviet Union, April 30, 1993

o Cooperative Threat Reduction Program, briefing by Dr. John Birely, DAS(AE)
for CTR, August 30, 1993

o DoD Report to Congress on Program Activities to facilitate weapons destruction and
nonproliferation in the Former Soviet Union, August 1993 (Draft, currently
circulating for clearance in DoD)

Defense Restructuring and Conversion

The attached papers contain recent information on some relevant National Security Initiatives.

1. President Clinton on Defense Conversion: *"Swords to Plowshares"*

Establishes Presidential Leadership... exhortation to act decisively and intelligently while managing change. Priorities:

- o Invest in people. Employee training programs, early retirement benefits for military, appropriate funding for loan and grant programs to aid communities hit hardest by defense cuts.

- o Promote dual-use technologies. ARPA will allocate more than \$500 million to technology and industrial programs.

- o Technology Transfer. \$300 million in the development of emerging non-defense technology. Shifting to a civilian economy should be the concern of DoD as well as NASA, Labor, Energy and many other government agencies.

2. William Perry: *"Guarding the Base"*

"Downsizing" will reduce military size clearly affecting the technology-related industrial base serving the National Security market. This article addresses the problem of consolidating/restructuring the post-cold war industrial base. Defense Industrial Policy is advocated, in fact believed to be necessary for properly managing the shrinking Defense base. Other salient points:

- o Defense related technology and the procurement/acquisition mechanisms are better than those abroad: however, DoD is not as good as U.S. industry in high-tech areas. "The challenge" is to do as well as the private sector despite having to work within the oversight constraints required by laws and regulations.

- o Administration promotes dual-use technology teaming (government/industry). Renaming ARPA signifies the commitment to gain access to civil-developed technologies without espousing a philosophy that technology flow is predominately one-way to DoD.

- o Increased importance of technology demonstrators. Envision awarding contracts to demonstrate technical readiness even when there are no procurement intentions.

3. Sherri Goodman: *"DoD's New Approach to Environmental Security"*
(Deputy Undersecretary for Environmental Security)

"Bottom Line" for DoD: For a variety of reasons, including the high cost of environmental remediation, it is in DoD's best interest to reduce or eliminate the use of environmentally damaging products at the earliest practical point in the design process of weapon systems.

She has encapsulated DoD's lack of action to protect the environment as "paralysis by analysis"; the Defense Environmental Restoration Program, begun in FY '84, has invested \$6.5 billion, while only cleaning up 416 sites.

The new DoD program "C³,P²", stands for clean-up, compliance, conservation, and pollution protection. Priorities:

- o Establish goals in each area: measurable ways to demonstrate progress.
- o Set priorities in order to strike balance between environmental programs, reducing environmental risk, cost effectiveness, and ensuring full environmental compliance by involving affected states and communities, and producing measurable results.

4. William Perry: *"Statement on Defense Reinvestment and Conversion Programs, Before the Committee On Armed Services, United States Senate, June 23, 1993"*

Testimony received on Defense Reinvestment and Conversion Program: Enacted by Congress last year; program strives to assist individuals, communities, and the defense industrial base in DoD draw-down. Program goals;

- o Individuals: Incentives for voluntary service separations, earning retirement points for service in "critical" community service jobs, retraining benefits, among others.
- o Communities: Formed "Independent Base Closure and Realignment Commission" in order to assist communities facing economic dislocation from closures.
- o Defense Industrial Base: Key program is the "Technology Reinvestment Project" under ARPA direction. Solicitations currently being accepted.

Salient Points from Dr. Perry's Statement:

o Underlying philosophy: Improve what has been done, diverge to things that DoD has not been typically involved in. One of his highest priorities is to integrate defense unique technology and industrial base with there national counterparts. This has four benefits:

- 1) Provide faster and lower cost technology access
- 2) Quicker and more efficient production gear-up
- 3) Allows DoD to draw upon a larger technology base
- 4) Removes DoD/Commercial barriers - easier adjustment to changing markets

o Conversion guided by five criteria

- 1) Generating economic growth
- 2) Achieving measurable results at reasonable cost
- 3) Market oriented to maximum extent possible
- 4) Leverage other resources
- 5) Minimizing creation of new bureaucracy

o Procurement budget is already 50% of the 1986 peak, and still headed down. In order to avoid a "hollow" industry, must manage the change while staying market competitive. Three associated tasks:

1) Market Contraction: DoD not responsible for supplier consolidation/merger, but rather responsible for providing industry an accurate *forecast* so efficient, market driven consolidation can occur.

2) Maintain present technological advantage: Industry must decide if it will maintain IR&D programs. DoD must sustain the technology base portion of the budget.

3) Diversification: DoD can assist in several areas

- a) Allow companies to use IR&D for dual and non-DoD technology
- b) Focus DoD R&D on dual use areas
- c) Acquisition reform - Acknowledging that reform is not moving as quickly as he would like, Dr. Perry also stated that he has "not waived a bit" in his acquisition reform objectives.

5. Reform of the Defense Acquisition System

Bill Perry headed the Carnegie Commission Task Force on National Security that recommended a sweeping reform of the defense acquisition system, a reform that was called for in the Clinton/Gore campaign technology statement of September 21, 1992. Because this is one of Perry's stated priority objectives as Deputy Secretary of Defense, it might be helpful to summarize his principal arguments:

- the overhead costs of the current acquisition system are some \$50 billion per year and will be an increasing percentage of the declining defense budget.
- weapons development and procurement procedures are incompatible with commercial practice, preventing the mutual reinforcement that is critical to the health of both the civilian and industrial base.
- inertia in the present system makes it impossible to create and mobilize the defense force of the future -- smaller and cheaper, but more flexible and still unmatched by any potential opponent.

As pointed out in Fred Tarantino's brief, Dr. Perry has acknowledged that reform is not moving as quickly as he would like. In addition to a "cultural lag" in moving from the status quo, there are strong vested interests in the Pentagon and on the Hill to maintain the current system whose displacement will cost thousands of procurement personnel jobs and whose conversion creates a sense of insecurity for those who see the present system as necessary for cost control and contractor oversight.

Action: Discuss with John Deutsch whether the issue of defense acquisition reform should be elevated to the level of the NSC and the Executive Office to provide the strength of leadership and presidential support necessary to convince the senior military officers and key members of Congress that overhaul of the defense acquisition system is crucial for future force effectiveness and for budgetary imperatives.

STATEMENT OF
WILLIAM J. PERRY
DEPUTY SECRETARY OF DEFENSE

ON

DEFENSE REINVESTMENT AND CONVERSION PROGRAMS

BEFORE THE
COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

JUNE 23, 1993

NOT FOR PUBLICATION
UNTIL RELEASED BY
THE COMMITTEE

MR. CHAIRMAN AND DISTINGUISHED MEMBERS OF THE COMMITTEE, IT IS A PLEASURE TO APPEAR BEFORE YOU TODAY TO DISCUSS THE DEPARTMENT OF DEFENSE'S PLANS FOR HELPING THE NATION ADJUST TO LOWER DEFENSE BUDGETS. WE CALL THESE PLANS DEFENSE REINVESTMENT AND CONVERSION.

I AM ESPECIALLY PLEASED TO APPEAR BEFORE THIS COMMITTEE TO DISCUSS THESE IMPORTANT ISSUES. THE ARMED SERVICES COMMITTEE WAS INSTRUMENTAL IN CREATING THE DEFENSE CONVERSION, REINVESTMENT, AND TRANSITION ASSISTANCE ACT OF 1992, WHICH LAID THE FOUNDATION FOR THE ADMINISTRATION'S DEFENSE TRANSITION EFFORTS. WE ARE IMPLEMENTING THIS LEGISLATION AGGRESSIVELY. FOR EXAMPLE, WE HAVE ALREADY RELEASED \$230 MILLION IN DOD FUNDS TO SUPPORT THE DEFENSE TRANSITION PROGRAMS OF THE DEPARTMENTS OF LABOR, COMMERCE, AND VETERANS AFFAIRS, AS REQUIRED BY THE LAW. I APPLAUD YOUR LEADERSHIP AND I LOOK FORWARD TO WORKING CLOSELY WITH YOU TO BUILD UPON OUR CURRENT EFFORTS.

THE COLLAPSE OF THE SOVIET UNION PROVIDES THE NATION WITH AN HISTORIC OPPORTUNITY TO REINVEST SOME OF THE RESOURCES THAT HAVE MADE US MILITARILY STRONG IN THE PAST TO MAKE US ECONOMICALLY STRONG TODAY AND IN THE FUTURE. WISE REINVESTMENT OF DEFENSE RESOURCES WILL CREATE NEW OPPORTUNITIES, NEW TECHNOLOGIES, NEW HIGH-SKILL, HIGH-WAGE JOBS, AND NEW ECONOMIC GROWTH. I AM CONVINCED THAT WE CAN ACHIEVE THESE GOALS, WHILE STILL PROVIDING FOR A STRONG, CAPABLE, AND READY MILITARY FORCE.

SHIFTING RESOURCES FROM DEFENSE, HOWEVER, IS NOT A PAINLESS PROCESS. PEOPLE LEAVING MILITARY SERVICE, DOD CIVILIAN EMPLOYMENT, AND DEFENSE CONTRACTORS ARE SEEKING WORK IN NON-DEFENSE ENDEAVORS. COMMUNITIES AFFECTED BY THE DRAWDOWN ARE STRIVING TO ATTRACT NEW ECONOMIC ACTIVITY. DEFENSE COMPANIES FACING DECLINING DOD PURCHASES ARE SHRINKING TO ADJUST TO A SMALLER MARKET, STRUGGLING TO FIND NEW MARKETS, AND MERGING WITH OTHER COMPANIES TO REMAIN COMPETITIVE.

THE ECONOMIC DISLOCATIONS THAT UNAVOIDABLY ACCOMPANY THE DRAWDOWN INTENSIFY THE ECONOMIC CRISIS FOR WORKERS, COMMUNITIES, AND BUSINESSES THAT ARE ALREADY HURTING FROM A LUKEWARM RECOVERY FROM THE RECENT RECESSION. GIVEN THE NEED TO REDUCE MILITARY SPENDING AND OUR CURRENT ECONOMIC ENVIRONMENT, THERE IS A CLEAR AND COMPELLING NEED FOR ACTIONS THAT WILL SPEED AND EASE THE TRANSITION.

THE DEPARTMENT OF DEFENSE IS IMPLEMENTING PROGRAMS DESIGNED TO DO JUST THAT: STRENGTHEN THE TECHNOLOGY AND INDUSTRIAL BASE AND SPEED AND EASE THE TRANSITION FOR AFFECTED INDIVIDUALS AND COMMUNITIES.

BEFORE I GO INTO THE SPECIFICS OF OUR TRANSITION PROGRAMS, I WOULD LIKE TO SHARE WITH YOU THE UNDERLYING PHILOSOPHY THAT GUIDES OUR APPROACH. PART OF OUR FOCUS MUST BE ON IMPROVING THE THINGS WE HAVE ALREADY DONE IN THE PAST, WHICH ARE THE ACTIONS NEEDED TO SUPPORT DIVERSIFICATION IN INDUSTRY AND TECHNOLOGY. THESE ACTIONS ARE COMPATIBLE WITH LONG-STANDING DEFENSE PURSUITS. ANOTHER PART OF

OUR FOCUS MUST BE ON THINGS THAT HAVE BEEN LESS IN LINE WITH TRADITIONAL DOD EFFORTS, WHICH ARE THE ACTIONS RELATED TO COMMUNITY DIVERSIFICATION AND WORKER RETRAINING.

BEFORE WE TALK ABOUT DUAL USE TECHNOLOGY AND INDUSTRY DIVERSIFICATION, THOUGH, WE NEED TO TOUCH ON AN EQUALLY IMPORTANT AND PERHAPS MORE FUNDAMENTAL POINT--THE NEED FOR ACQUISITION REFORM.

ACQUISITION REFORM AND THE TECHNOLOGY AND INDUSTRIAL BASE

OUR DEFENSE REINVESTMENT AND CONVERSION PROGRAMS ARE ONE PART OF A TWO-PRONGED EFFORT. THE OTHER PART IS EFFECTIVE REFORM OF OUR ACQUISITION SYSTEM WITHOUT WHICH, I AM CONVINCED, THERE CAN BE LITTLE SUCCESSFUL DEFENSE CONVERSION OR DUAL USE TECHNOLOGY. THEREFORE, ONE OF MY HIGHEST PRIORITIES IS TO INTEGRATE THE DEFENSE-UNIQUE TECHNOLOGY AND INDUSTRIAL BASE WITH OUR NATIONAL TECHNOLOGY AND INDUSTRIAL BASE. WHILE THIS INTEGRATION WOULD BE A GOOD IDEA AT ANY TIME, IT IS ABSOLUTELY ESSENTIAL IN THE FACE OF CONTINUING REDUCTIONS IN THE DEFENSE BUDGET.

INTEGRATING THE DEFENSE AND NATIONAL TECHNOLOGY AND INDUSTRIAL BASES OFFERS FOUR KEY BENEFITS TO THE DEPARTMENT AND THE NATION. FIRST, INTEGRATION WILL PROVIDE THE DEPARTMENT WITH FASTER AND LOWER-COST ACCESS TO TECHNOLOGIES THAT WE WANT TO INCORPORATE INTO HIGH-LEVERAGE WEAPONS. THESE TECHNOLOGIES, SUCH AS ELECTRONICS,

ADVANCED MATERIALS, AND INFORMATION PROCESSING, ARE ALMOST INVARIABLY DUAL-USE.

SECOND, INTEGRATION WILL RESULT IN FASTER AND LOWER-COST PRODUCTION OF DEFENSE EQUIPMENT THROUGH THE USE OF NEW MANUFACTURING PROCESSES AND TECHNOLOGY. AGAIN, THESE PROCESSES AND TECHNOLOGIES ARE INVARIABLY DUAL-USE.

THIRD, INTEGRATION WILL ALLOW THE DEPARTMENT TO DRAW UPON A MUCH LARGER TECHNOLOGY AND INDUSTRIAL BASE, AND THAT MAY BECOME CRUCIAL IF WE EVER HAVE TO RECONSTITUTE OUR MILITARY FORCES. INTEGRATION WILL ALSO ALLOW THE DEPARTMENT TO MAKE BETTER USE OF COMMERCIAL STATE-OF-THE-ART TECHNOLOGIES AND PROCESSES. THIS IS INCREASINGLY IMPORTANT TO THE DEPARTMENT BECAUSE IN MANY AREAS IMPORTANT TO DEFENSE, COMMERCIAL TECHNOLOGIES LEAD DEFENSE-UNIQUE ONES.

FINALLY, INTEGRATION WILL FACILITATE THE TRANSITION FOR THOSE COMPANIES WITH LARGER FACILITIES AND LARGER WORKFORCES THAN NEEDED FOR THE SIZE OF CURRENT AND PLANNED DOD PURCHASES. BY REMOVING THE BARRIERS THAT SEPARATE DEFENSE AND NONDEFENSE WORK, THE DEPARTMENT WILL MAKE IT EASIER FOR COMPANIES TO ADJUST TO CHANGES IN THE DEFENSE MARKET.

WE RECOGNIZE THAT INTEGRATION CAN NOT BE RELIED UPON TO MEET ALL DEFENSE NEEDS. THERE ARE A FEW SECTORS OF THE TECHNOLOGY AND INDUSTRIAL BASE, SUCH AS FIGHTER AIRCRAFT AND NUCLEAR-POWERED

SUBMARINES, THAT ARE TRULY DEFENSE-UNIQUE AND ARE NEEDED TO MEET FUTURE SECURITY REQUIREMENTS. WHEN NECESSARY, DOD WILL TAKE ACTIONS TO ENSURE THE CONTINUED VITALITY OF THESE SECTORS. EFFORTS ARE UNDERWAY TO EXAMINE KEY INDUSTRIAL SECTORS AND IDENTIFY THE STEPS THAT WILL BE NECESSARY TO MAINTAIN CRITICAL CAPABILITIES AS AN INTEGRAL PART OF THE DEPARTMENT'S BOTTOM-UP REVIEW.

AS WE FOCUS ON DEFENSE REINVESTMENT AND CONVERSION PROGRAMS TODAY, WE SHOULD KEEP IN MIND THE SUBSTANTIAL CONTRIBUTIONS THAT ACQUISITION REFORM CAN MAKE TO THE TRANSITION PROCESS.

THE CLINTON ADMINISTRATION IS DEEPLY COMMITTED TO DEFENSE

REINVESTMENT

THE ADMINISTRATION IS DEEPLY COMMITTED TO DEFENSE REINVESTMENT AND CONVERSION PROGRAMS. PRESIDENT CLINTON DISCUSSED OUR PROGRAMS AND THE IMPORTANCE THAT THE ADMINISTRATION ATTACHES TO THEM IN HIS SPEECH IN BALTIMORE ON MARCH 11TH. WE RECOGNIZE THAT CONVERSION WILL NOT BE EASY. BUT WE ALSO KNOW THAT, AS THE PRESIDENT SAID, "DEFENSE CONVERSION CAN BE DONE AND CAN BE DONE WELL." THE DEFENSE DEPARTMENT WILL DO EVERYTHING IT CAN TO ENSURE THAT IT IS INDEED DONE WELL.

WE HAVE DEVELOPED PROGRAMS THAT WE BELIEVE ARE EFFECTIVE, CAN BE IMPLEMENTED QUICKLY, AND ARE CONSISTENT WITH WELL-ESTABLISHED DOD MISSIONS AND PRACTICES. EACH OF THE PROGRAMS MEETS A *BONA FIDE* DOD REQUIREMENT--TO MAINTAIN A HIGH-QUALITY FORCE AT THE APPROPRIATE

SIZE, TO DEVELOP TECHNOLOGIES FOR MILITARY PURPOSES, OR TO ASSIST COMMUNITIES SEVERELY AFFECTED BY THE DRAWDOWN, FOR EXAMPLE.

FIVE CRITERIA GUIDED OUR ESTABLISHMENT OF THESE PROGRAMS. FIRST, PROGRAMS WERE SELECTED TO GENERATE ECONOMIC GROWTH AND TO CREATE NEW JOBS IN GROWING SECTORS OF THE ECONOMY. SECOND, THE PROGRAMS ARE ORIENTED TOWARD ACHIEVING CONCRETE, MEASURABLE RESULTS AT A REASONABLE COST. THIRD, THE PROGRAMS ARE MARKET-ORIENTED TO THE MAXIMUM EXTENT PRACTICABLE. FOURTH, THE PROGRAMS SEEK TO LEVERAGE ADDITIONAL RESOURCES, BY REQUIRING MATCHING FUNDS, FOR EXAMPLE. FIFTH, THE PROGRAMS MINIMIZE THE CREATION OF NEW BUREAUCRACIES BY TAKING ADVANTAGE OF EXISTING PROGRAMS AND ORGANIZATIONS.

DOD IS WORKING CLOSELY WITH OTHER DEPARTMENTS AND AGENCIES

WORKING CLOSELY WITH OTHER DEPARTMENTS AND AGENCIES HAS ALSO BEEN AN IMPORTANT PART OF OUR PHILOSOPHY. THE DEPARTMENT PARTICIPATES ACTIVELY IN INTER-AGENCY WORKING GROUPS ON DEFENSE CONVERSION AND RELATED ISSUES CHAIRED BY THE WHITE HOUSE NATIONAL ECONOMIC COUNCIL. IN ADDITION, WE HAVE EXTENSIVE COLLABORATION WITH THE DEPARTMENT OF LABOR, THE ECONOMIC DEVELOPMENT ADMINISTRATION AND NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY OF THE DEPARTMENT OF COMMERCE, THE DEPARTMENT OF ENERGY, THE DEPARTMENT OF VETERANS AFFAIRS, THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, THE NATIONAL SCIENCE FOUNDATION, THE DEPARTMENT OF EDUCATION, AND OTHERS.

THROUGH THESE INTER-AGENCY EFFORTS, WE ARE COORDINATING PROGRAMS, CAPITALIZING ON THE STRENGTHS OF DIFFERENT PARTS OF THE FEDERAL GOVERNMENT, AND LIMITING WASTEFUL DUPLICATION. THESE EFFORTS ARE EXTREMELY SUCCESSFUL AND WE PLAN TO CONTINUE THEM IN THE FUTURE.

DEFENSE REINVESTMENT AND CONVERSION PROGRAMS

LET ME NOW TURN TO THE SPECIFICS. I WILL ADDRESS THE PROGRAMS THAT WE ARE IMPLEMENTING FOR 1993 AS WELL AS THOSE PROPOSED IN THE 1994 BUDGET FOR THE INDUSTRIAL AND TECHNICAL BASE, PEOPLE, AND COMMUNITIES.

THE TECHNOLOGY AND INDUSTRIAL BASE

THE DEPARTMENT IS MOVING FORWARD AGGRESSIVELY TO IMPLEMENT TECHNOLOGY AND INDUSTRIAL BASE CONVERSION, REINVESTMENT, AND TRANSITION ASSISTANCE PROGRAMS.

FIRST, THERE IS THE TECHNOLOGY REINVESTMENT PROJECT, OR TRP. DOD'S ADVANCED RESEARCH PROJECTS AGENCY (ARPA) RECENTLY ESTABLISHED THE DEFENSE TECHNOLOGY CONVERSION COUNCIL (DTCC). THE OTHER ORIGINAL MEMBERS OF THE GROUP ARE THE DEPARTMENT OF COMMERCE, THE DEPARTMENT OF ENERGY, THE NATIONAL SCIENCE FOUNDATION, AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. THE DEPARTMENT OF TRANSPORTATION HAS RECENTLY JOINED THE EFFORT.

THE DTCC WAS CREATED TO PLAN AND EXECUTE THOSE DUAL-USE TECHNOLOGY PROGRAMS AUTHORIZED UNDER THE DEFENSE CONVERSION, REINVESTMENT AND TRANSITION ASSISTANCE ACT, COMMONLY REFERRED TO AS THE TRP.

THE TRP IS A TRULY REVOLUTIONARY UNDERTAKING IN A NUMBER OF RESPECTS. FIRST, THE TRP IS THE RESULT OF UNPRECEDENTED COOPERATION AMONG A NUMBER OF DIFFERENT FEDERAL DEPARTMENTS AND AGENCIES. SECOND, THE TRP IS UNIQUE BECAUSE IT ADDRESSES THE BROAD SPECTRUM OF ESSENTIAL INDUSTRY AND TECHNOLOGY TRANSITION PROGRAMS, FROM DEVELOPING NEW TECHNOLOGIES TO FINDING NEW USES AND MARKETS FOR EXISTING TECHNOLOGIES TO PROVIDING MANUFACTURING EDUCATION AND TRAINING. THIRD, THE TRP ENSURES THAT INDUSTRY IS ACTIVELY INVOLVED IN SHAPING THE PROGRAMS. FOURTH, THE TRP RECOGNIZES THE DIVERSITY OF THE TECHNOLOGY AND INDUSTRIAL BASE BY FOCUSING SPECIFIC PROGRAMS ON THE NEEDS OF SMALL DEFENSE BUSINESSES.

THE DTCC RELEASED A SOLICITATION FOR THE TRP ON MAY 14TH. THE DEADLINE FOR PROPOSAL SUBMISSIONS IS JULY 23, 1993, AND SOME INITIAL AWARDS ARE PLANNED BY THE END OF THE CALENDAR YEAR. BEFORE RELEASING THE SOLICITATION, THE DTCC TRAVELED TO 16 CITIES AROUND THE COUNTRY TO PRESENT INFORMATION CONFERENCES FOR PROSPECTIVE PARTICIPANTS IN TRP PROGRAMS. THESE CONFERENCES WERE SUCCESSFUL BY ANY MEASURE AND WERE WELL ATTENDED: MORE THAN 5,000 PEOPLE PARTICIPATED.

SECOND, WE PLAN TO INCREASE GREATLY THE EMPHASIS ON DUAL USE TECHNOLOGIES AND CONVERSION IN THE DEPARTMENT'S SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM. THIS EFFORT WILL HELP SMALL DEFENSE COMPANIES DEVELOP NEW PRODUCTS AND DIVERSIFY INTO NEW MARKETS.

THIRD, WE HAVE INCREASED CONTRACTORS' FLEXIBILITY IN THE USE OF INDEPENDENT RESEARCH AND DEVELOPMENT (IR&D) FUNDS AND HAVE ENCOURAGED THEM TO USE THESE FUNDS TO DEVELOP DUAL-USE TECHNOLOGIES AND DIVERSIFY INTO NON-DEFENSE MARKETS. AN APRIL 22 LETTER FROM THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND TECHNOLOGY TO THE COUNCIL OF DEFENSE AND SPACE INDUSTRY ASSOCIATIONS EXPLAINS THE DEPARTMENT'S INITIATIVES IN THIS AREA.

TAKEN TOGETHER, DOD'S FISCAL YEAR 1994 BUDGET FUNDS TECHNOLOGY AND INDUSTRIAL BASE REINVESTMENT AND CONVERSION PROGRAMS \$1.6 BILLION, WHICH INCLUDES \$324 MILLION OF NEW BUDGET AUTHORITY FOR CONTINUATION OF THE TRP.

PEOPLE

THE MOST IMMEDIATE EFFECTS OF THE DRAWDOWN ARE BEING FELT BY MILITARY PERSONNEL LEAVING THE ARMED SERVICES, CIVILIANS LEAVING DOD, AND WORKERS IN THE PRIVATE SECTOR LEAVING DEFENSE CONTRACTORS. THE SAME INDIVIDUALS WHO HAVE DONE SUCH AN OUTSTANDING JOB OF SAFEGUARDING OUR NATION'S SECURITY AND WINNING THE COLD WAR MUST NOW

FACE THE UNCERTAIN PROSPECTS OF FINDING NEW EMPLOYMENT IN A TIGHT JOB MARKET.

AN IMPORTANT FIRST STEP IS TO MINIMIZE THE USE OF INVOLUNTARY REDUCTIONS-IN-FORCE (RIFS) OF MILITARY PERSONNEL AND DOD CIVILIAN EMPLOYEES BECAUSE OF THEIR ADVERSE EFFECTS ON MORALE AND PRODUCTIVITY. IN REDUCING ITS WORKFORCE, DOD IS RELYING ON RETIREMENTS, REDUCED ACCESSIONS, ATTRITION, AND VOLUNTARY MEASURES TO THE MAXIMUM EXTENT POSSIBLE. TO MINIMIZE INVOLUNTARY RIFS, DOD IS OFFERING EARLY RETIREMENT TO SELECTED MILITARY PERSONNEL WITH BETWEEN 15 AND 19 YEARS OF SERVICE, CONTINUING SUCCESSFUL IMPLEMENTATION OF THE VOLUNTARY SEPARATION INCENTIVE AND SPECIAL SEPARATION BENEFIT (VSI AND SSB) PROGRAMS FOR MILITARY PERSONNEL, AND OFFERING FINANCIAL INCENTIVES TO SELECTED CIVILIAN EMPLOYEES WHO RETIRE OR RESIGN.

WE ARE HELPING SEPARATING MILITARY PERSONNEL, DOD CIVILIANS, AND DEFENSE WORKERS PREPARE FOR NEW EMPLOYMENT BY WORKING WITH THE OTHER DEPARTMENTS TO PROVIDE EMPLOYMENT AND RETRAINING SERVICES. DOD HAS RELEASED \$75 MILLION TO THE DEPARTMENT OF LABOR FOR RETRAINING AND EMPLOYMENT SERVICES. DOD RELEASED AN ADDITIONAL \$73.5 MILLION TO THE DEPARTMENT OF VETERANS AFFAIRS AND \$1.5 MILLION TO THE DEPARTMENT OF LABOR TO IMPLEMENT THE SERVICE MEMBERS OCCUPATIONAL CONVERSION AND TRAINING ACT, WHICH WILL PROVIDE TRAINING TO VETERANS. IN CONJUNCTION WITH THE DEPARTMENT OF LABOR, THE DEPARTMENT OF VETERANS AFFAIRS, AND STATE EMPLOYMENT AGENCIES, DOD HAS ALSO INCREASED ITS

EFFORTS TO PROVIDE EMPLOYMENT INFORMATION TO SEPARATING PERSONNEL AND TO PROVIDE TRANSITION ASSISTANCE SERVICES TO MEMBERS OF NATIONAL GUARD AND RESERVE UNITS.

THE DOD BUDGET FOR THE 1994 FISCAL YEAR INCLUDES \$555 MILLION FOR PERSONNEL ASSISTANCE PROGRAMS. THESE FUNDS DO NOT INCLUDE PROGRAMS ADMINISTERED BY THE DEPARTMENT OF LABOR TO ASSIST DISPLACED DEFENSE WORKERS.

COMMUNITIES

PROVIDING RAPID AND EFFECTIVE ASSISTANCE TO COMMUNITIES HURT BY REDUCTIONS IN DEFENSE SPENDING IS A HIGH PRIORITY FOR THE DEPARTMENT. WHEN A MILITARY BASE OR A DEFENSE PLANT CLOSES OR SHRINKS, COMMUNITIES CAN LOSE THE KEY SOURCES OF THEIR ECONOMIC LIVELIHOOD. DOD RECOGNIZES THE SPECIAL PROBLEMS THAT COMMUNITIES FACE AND PLANS TO STRENGTHEN ITS EFFORTS TO HELP THEM ADJUST TO THE DRAWDOWN.

ENVIRONMENTAL CLEAN-UP OF CLOSING MILITARY FACILITIES IS ONE AREA THAT WILL RECEIVE INCREASED ATTENTION. COMMUNITIES FACE AN EASIER ECONOMIC ADJUSTMENT WHEN THEY CAN IMPLEMENT QUICKLY THEIR PLANS TO REUSE CLOSING MILITARY FACILITIES. DOD WILL CONTINUE TO RECOGNIZE ITS RESPONSIBILITIES TO CLEAN-UP CONTAMINATED SITES AND PLANS TO STREAMLINE THE ENVIRONMENTAL RESTORATION PROCESS TO ENSURE THAT CLEAN-UP DOES NOT BECOME A BARRIER TO LOCAL ECONOMIC RECOVERY. A NEW POSITION OF DEPUTY UNDER SECRETARY OF DEFENSE FOR ENVIRONMENTAL

SECURITY HAS BEEN CREATED TO PLACE INCREASED EMPHASIS ON THE ENVIRONMENT.

DOD HAS INCREASED SIGNIFICANTLY THE SCOPE OF ACTIVITIES UNDERTAKEN BY ITS OFFICE OF ECONOMIC ADJUSTMENT (OEA). OEA IS RESPONSIBLE FOR LEADING DOD'S EFFORTS TO WORK WITH COMMUNITIES SEVERELY AFFECTED BY BASE CLOSURES AND OTHER REDUCTIONS IN DEFENSE SPENDING. OEA WORKS CLOSELY WITH OTHER FEDERAL, STATE, AND LOCAL GOVERNMENT ORGANIZATIONS IN ORDER TO BRING THE FULL RANGE OF ASSISTANCE PROGRAMS TO BEAR ON AFFECTED COMMUNITIES. WE HAVE INCREASED OEA'S BUDGET DRAMATICALLY FROM ABOUT \$8 MILLION IN FY 1992 TO NEARLY \$30 MILLION IN FY 1993.

WITH ITS INCREASED BUDGET, OEA WILL OFFER GRANTS TO HELP COMMUNITY ORGANIZATIONS TRANSITION FROM A PLANNING FUNCTION TO AN OPERATIONAL ENTITY. PREVIOUSLY, OEA FUNDED THE PLANNING FUNCTION ONLY. OEA ALSO PLANS TO SOLICIT APPLICATIONS FROM STATES TO SUPPORT LOCAL COMMUNITY ADJUSTMENT AND BUSINESS ASSISTANCE PROGRAMS, AND UP TO \$2.5 MILLION IS EARMARKED FOR THIS PURPOSE. OEA WILL ALSO MAKE GRANTS TO HELP STATES AND LOCAL GOVERNMENTS DEVELOP COMMUNITY ADJUSTMENT AND ECONOMIC DIVERSIFICATION PLANS. IN ADDITION, OEA RECENTLY ESTABLISHED FOUR PILOT PROJECTS IN AREAS AFFECTED BY THE DRAWDOWN.

WE ARE ALSO IMPLEMENTING OTHER PARTS OF THE LEGISLATION FOR THIS FISCAL YEAR TO HELP COMMUNITIES. DOD RELEASED \$80 MILLION FOR

ADJUSTMENT PROGRAMS FOR DEFENSE-DEPENDENT COMMUNITIES TO THE ECONOMIC DEVELOPMENT ADMINISTRATION (EDA) OF THE DEPARTMENT OF COMMERCE.

EDA'S TITLE IX PROGRAM PROVIDES FUNDS FOR A VARIETY OF SERVICES IN COMMUNITIES EXPERIENCING ECONOMIC DISLOCATION. EDA FUNDS CAN BE USED TO SUPPORT BUSINESS DEVELOPMENT, TECHNICAL ASSISTANCE, PUBLIC WORKS, OR ALMOST ANY OTHER ACTIVITY THAT ADDRESSES ECONOMIC ADJUSTMENT PROBLEMS THAT HAVE BEEN IDENTIFIED IN EACH COMMUNITY'S ECONOMIC ADJUSTMENT PLAN.

FORMER MILITARY PERSONNEL, DOD CIVILIAN EMPLOYEES, AND PRIVATE SECTOR DEFENSE WORKERS ARE WELL-SUITED TO MOVE INTO JOBS IN PUBLIC AND COMMUNITY SERVICE. MANY OF THESE INDIVIDUALS ALREADY HAVE THE REQUISITE MOTIVATION, BACKGROUND, AND TRAINING. DOD IS INCREASING ITS EFFORTS TO PLACE QUALIFIED INDIVIDUALS IN PUBLIC SERVICE OCCUPATIONS THROUGH A NUMBER OF EFFORTS. TO MATCH SEPARATING DEFENSE WORKERS WITH PUBLIC AND COMMUNITY SERVICE JOBS, THE DEPARTMENT IS DEVELOPING COMPUTER-BASED REGISTRIES OF DEFENSE EMPLOYEES INTERESTED IN PUBLIC AND COMMUNITY SERVICE AND OF JOB OPENINGS IN PUBLIC AND COMMUNITY SERVICE ORGANIZATIONS. THE DEPARTMENT IS DEVELOPING PROGRAMS FOR PLACING FORMER DEFENSE PERSONNEL IN TEACHING AND ENVIRONMENTAL FIELDS AND IS CONSIDERING SIMILAR PROGRAMS FOR HEALTH CARE AND LAW ENFORCEMENT. THE DEPARTMENT IS EXPANDING EFFORTS TO MEET CRITICAL NEEDS IN THE NATION'S HIGH SCHOOLS AND IS PLANNING IMPLEMENTATION OF THE NATIONAL GUARD CIVILIAN YOUTH OPPORTUNITIES PILOT PROGRAM.

THE 1994 DOD BUDGET INCLUDES \$138 MILLION FOR COMMUNITY ADJUSTMENT AND ASSISTANCE PROGRAMS. THIS DECLINE FROM 1993 FUNDING DOES NOT REFLECT A SMALLER EFFORT TO HELP COMMUNITIES. THE DECLINE OCCURS BECAUSE SOME 1994 PROGRAM RESPONSIBILITIES WILL BE FUNDED DIRECTLY THROUGH THE DEPARTMENT OF COMMERCE, RATHER THAN THROUGH DOD AS WAS DONE IN 1993, AND BECAUSE THE 1994 BUDGET DOES NOT INCLUDE SOME ONE-TIME PROGRAMS FOR 1993.

CONCLUSION

THE CRITICAL LINKAGES BETWEEN THE MILITARY AND ECONOMIC COMPONENTS OF OUR NATION'S SECURITY ARE CLEARER IN THE POST-COLD WAR ENVIRONMENT THAN THEY HAVE EVER BEEN BEFORE. DOD WILL CONTINUE TO FOCUS ON ITS PRIMARY AND OVERRIDING MISSION OF SAFEGUARDING THE NATIONAL SECURITY, BUT WILL PAY MUCH CLOSER ATTENTION TO THE ECONOMY.

THE INITIATIVES DISCUSSED TODAY ARE DOD'S. AND WHILE DOD HAS A SUBSTANTIAL ROLE TO PLAY IN ADDRESSING THE EFFECTS OF THE DRAWDOWN, OTHER DEPARTMENTS AND AGENCIES ALSO HAVE KEY ROLES. THE DEPARTMENT LOOKS FORWARD TO WORKING CLOSELY WITH THE DEPARTMENTS OF COMMERCE, LABOR, AND VETERANS AFFAIRS, STATE EMPLOYMENT AGENCIES, AND OTHERS TO DEVELOP AND IMPLEMENT EFFECTIVE DEFENSE TRANSITION PROGRAMS.

IT SHOULD BE CLEAR FROM THE PROGRAMS DISCUSSED TODAY THAT MEETING THE NEEDS OF DEFENSE AND OUR ECONOMY ARE COMPLEMENTARY, NOT

CONFLICTING, ENDEAVORS. EASING THE TRANSITION FOR PEOPLE WILL FACILITATE THEIR REENTRY INTO THE ECONOMY. HELPING COMMUNITIES ADJUST TO REDUCED DEFENSE SPENDING WILL CREATE ECONOMIC GROWTH. PURSUING DUAL-USE TECHNOLOGIES AND COMMERCIAL-MILITARY INTEGRATION WILL PROVIDE DOD WITH BETTER PRODUCTS AT REDUCED COSTS AND WILL INCREASE THE NATION'S PRODUCTIVITY AND ECONOMIC GROWTH. DOD'S DEFENSE REINVESTMENT AND CONVERSION INITIATIVES WILL RESULT NOT ONLY IN A STRONG NATIONAL DEFENSE AT LOWER COST, BUT ALSO IN THE CREATION AND MAINTENANCE OF TECHNOLOGICALLY ADVANCED, GLOBALLY COMPETITIVE INDUSTRY THROUGHOUT THE UNITED STATES.

THANK YOU FOR THE OPPORTUNITY TO BE WITH YOU TODAY. I STAND READY TO ANSWER YOUR QUESTIONS.