S. HRG. 109–300

DEPARTMENTS OF COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

ON

H.R. 2862

AN ACT MAKING APPROPRIATIONS FOR SCIENCE, THE DEPARTMENTS OF STATE, JUSTICE, AND COMMERCE, AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2006, AND FOR OTHER PURPOSES

Department of Commerce
Department of Justice
Executive Office of the President: Office of Science and Technology Policy
National Aeronautics and Space Administration
National Science Foundation
Nondepartmental Witnesses

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DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

THURSDAY, FEBRUARY 17, 2005

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:01 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Christopher S. Bond (chairman) presiding.

Present: Senators Bond, Stevens, and Mikulski.

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

STATEMENT OF DR. JOHN H. MARBURGER, III, DIRECTOR, AND SCIENCE ADVISOR TO THE PRESIDENT

OPENING STATEMENT OF SENATOR CHRISTOPHER S. BOND

Senator BOND. Good morning. The Senate Appropriations Committee's Subcommittee on VA, HUD, and Independent Agencies' hearing on the 2006 budget request for NSF and OSTP will come to order.

My apologies for the confusion today. We are starting early because, as most of you know, this is a day when Secretary Rice will be testifying on the urgent supplemental at 10 o'clock. My colleague, Senator Mikulski, is in traffic and will be here about 9:15. She has asked that I proceed, and I apologize because we were held up for a half an hour by a traffic accident, so that is why the scramble.

This is a very important hearing that we wanted to begin. I welcome Dr. John Marburger from OSTP, Dr. Arden Bement from the National Science Foundation, and Dr. Warren Washington from the National Science Board.

Congratulations, Dr. Bement, for being confirmed last year as NSF's Director. I look forward to working with all three of you and hearing your testimony today.

Before I proceed with the business at hand, I recognize there are several questions surrounding the future structure of our committee. While this is an important issue and my staff and I have had to spend far too much time on it, I strongly believe that we cannot hold up work of the Senate and the taxpayers by waiting for this issue to be resolved. We intend to resolve it appropriately. We have to move forward. That is why we are here today.

While our colleagues across the Capitol say they want to avoid another omnibus, the hasty and ill-advised action they took last week will do just the opposite, forcing an omnibus, unless we can arrive at an accommodation. That is very unfortunate. As this particular panel knows, when we go into an omnibus, funds are cut out of the basic research that we need so badly. That is what happened last year.

I have been, as Senator Mikulski has been, and will continue to be a very strong supporter of NSF and a robust NSF budget. My support for the work at NSF has not and will not diminish.

I think this is a very important hearing today because it gives us an opportunity to talk about the critical role NSF plays in the economic, scientific, and intellectual growth of this Nation. Our country's future depends upon our ability to lead the world in science and technology, especially in the global marketplace. NSF is a primary tool in meeting the global challenges of the 21st century, pushing the boundaries of scientific research and technology. NSF's work should give us a better insight into the world around us. This work will build our economy, provide jobs, speed innovation, and improve the quality of life for all our people.

Unfortunately, the Federal Government has not adequately supported NSF in the physical sciences. I strongly believe that the funding disparity between life sciences and the physical sciences has grown too large. And I have had numerous physicians, medical researchers, scientists tell us that we are holding back work in developments in the life sciences because we are not funding the basic NSF sciences that support them. The funding imbalance directly jeopardizes our ability to lead the world in scientific innovation. As I said, the NIH work is jeopardized because by undermining the physical sciences, we are undermining the underpinning for medical technological advances.

Inadequate funding for NSF also hurts our economy and the creation of jobs. In recent years, there has been an outcry about outsourcing jobs to other countries. The best remedy for this issue is not protectionism but investing in education and skills of our future work force. This means better science and math education and technological skills, such as computer literacy. This is a major part of NSF's mission.

I met earlier this week with leaders of our Nation's major computer companies, and they were absolutely stunned by the lack of commitment and investment in this research. They point out that it takes 25 years for this basic research to translate into jobs and to practical applications, and by not funding it now, we are shortchanging our Nation several years down the road.

Sadly, the budget request for NSF does not provide it with adequate resources to meet its mission. While Dr. Marburger and our friends at OMB will state that the NSF budget is one of the few

increases in the Federal budget, I am not happy. Dr. Marburger chided me for the slim funding for NSF last year, and Jack, do you remember what I said? I said I cannot do it if OMB undercuts us. And guess what? OMB has undercut us once again. It is especially disappointing because Senator Mikulski and I and my other colleagues have made great efforts to get on a path to double funding for NSF. We have fallen off that path drastically, but we are not going to give up.

This should be one of the highest priorities not just for this subcommittee but for the full committee, for the Congress and for the Nation. It means a greater effort by the research and high-tech sector in advocating and selling the virtues of NSF to the general public. Please, ladies and gentlemen, come out of your laboratories, come out of your think tanks, and let people know how important this funding is.

Now, I know there are significant shortfalls throughout the Federal budget, and our own committee, the VA–HUD subcommittee, such as it is or was or may be, has underfunding for VA medical care, community development block grants, and in EPA Clean Water. It is obviously going to be a major challenge to find the funds for NSF in 2006. But, Senator Mikulski and I are committed to NSF and we are going to work with the administration to increase the NSF budget as we move forward.

Given this constrained funding environment, it is even more critical that the National Science Board develop a long-term vision for NSF. In other words, Dr. Washington, we need a strategy that outlines what our priorities are, how we can get the biggest bang for our bucks through programs and activities supported by NSF. This does not mean looking into NSF to alter its grant size and duration. This means articulating a vision for the future of science and technology, including what are the new, bold, cutting-edge areas of research. We need a plan, a business plan, if you would, on how NSF will lead the research community in meeting these new, bold challenges. The Board has a tremendous talent pool available and we need you and the Board to tell us what are the activities that we must pursue for the future.

One of the specific areas that the Board should examine is the future of our Nation's math and science education. In its budget request, the administration has made some disturbing cuts to NSF's education portfolio, especially those programs serving K through 12 education. Every major assessment of math and science has shown how far our country's students have fallen behind the rest of the world in math and science proficiency. I understand that up to fourth grade, boys and girls are doing well, but by the time they get to the eighth grade, our students are out-performed by 8 countries in science and by 14 countries in math, including Latvia and Malaysia. Now, what are we thinking about? We have to address this problem before it is too late.

Our scientific education and research system must also ensure that no one is left behind. I am pleased that the budget request emphasizes the importance of broadening the participation of programs to under-represented groups such as minorities, women, and people with disabilities. Nevertheless, while OMB did not continue

its routine practice of the past in cutting these types of programs, flat funding is not an overwhelming response.

Moreover, flat funding programs that support under-represented groups is hurting our ability to address a growing national crisis where there is a shortage of new homegrown scientists and engineers. We are not attracting enough young students, especially minorities, into these disciplines.

In the past, we used to bring in students from foreign countries. We would educate them here and they would stay here and provide great resources for our country, and their intellectual capability was one of the assets that we could rely on. Now many of these students are going home because they can do the work in their home countries. We cannot continue to rely on foreign students coming and staying in the United States to fill the gap by retiring engineers and the scientists. We need to develop our students to fulfill those roles.

In addition, I have a strong interest in nanotechnology. The budget provides $344 million for this important program. There is a tremendous amount of excitement about nanotechnology because of its far-reaching benefits from computers to manufacturing processes, to agriculture, to medicine.

And as everyone knows, I am also a very big supporter of plant biotechnology because it has generated exciting possibilities for improving human health and nutrition. Impressive research is being done with plant genomics that can eventually be a powerful tool for addressing hunger in developing countries like those in Africa and Southeast Asia. I am very pleased by the recent progress on sequencing the maize genome, led by researchers at the Danforth Plant Science Center and the collaboration between the University of Missouri-Columbia and Nepal on oilseeds from soybeans. I thank our good friend, Dr. Mary Clutter, for her work on these efforts and look forward to hearing more about it from her.

In addition to my concerns about funding, I have to address one particular area of concern. Specifically I remain concerned about the Foundation's continuing deficiencies in managing and overseeing its large research facility projects. I will not go into detail about the Inspector General's statement, which is made a matter for the record, but it indicates that NSF's progress in addressing large facility management problems has been slow. Dr. Bement, I understand you have taken these issues more seriously than your predecessor, but I need your firm commitment that you will immediately implement the IG and National Academy of Sciences' recommendations to correct these problems. I also believe the Board should oversee these more closely.

Lastly, the Board and Foundation must finalize the priority-setting process guidelines for large research facilities. I do not want to hear any more excuses. This is not rocket science. It is just good management.

I look forward to hearing the testimony of our witnesses today, and I will call on my colleague and partner, Senator Mikulski, when she arrives.

PREPARED STATEMENT

Now, because of the tightened time schedule, I would ask—Dr. Marburger gets 7½ minutes and Dr. Bement and Dr. Washington get 5. While you get ready, I will now turn it over to my colleague, Senator Mikulski. I have told them how the cow eats the cabbage, and you can continue from here.

[The statement follows:]

PREPARED STATEMENT OF SENATOR CHRISTOPHER S. BOND

The subcommittee will come to order. This morning, the VA–HUD and Independent Agencies Subcommittee will conduct its first hearing of the year and we begin with the fiscal year 2006 budgets for the National Science Foundation, the National Science Board, and the Office of Science and Technology Policy. I welcome back Dr. John Marburger from OSTP, Dr. Arden Bement from NSF, and Dr. Warren Washington from the National Science Board to our subcommittee. I congratulate Dr. Bement for being confirmed last year as NSF's new Director. I look forward to working with all three of you and hearing your testimony today.

Before I proceed with the business at hand, I recognize that there are a lot of questions surrounding the future structure of our committee. While this is an important issue, I strongly believe that we cannot hold up the work of the Senate and the taxpayers by waiting for this issue to be resolved. We must move forward. That is why we are here today. While our colleagues across the Capitol say they want to avoid another Omnibus, the hasty and ill-advised action they took this week will do just the opposite, forcing an Omnibus. That is unfortunate.

As many of you know, I have been, and will continue to be a strong supporter of NSF and a robust budget for NSF as well. My support for the work done at NSF has not, and will not diminish.

This is a very important hearing because it gives me the opportunity to talk about the critical role NSF plays in the economic, scientific and intellectual growth of this Nation. Our country's future resides in our ability to lead the world in science and technology, especially in the global marketplace. NSF is one of our primary tools in meeting the global challenges of the 21st Century by pushing the boundaries of scientific research and technology. NSF's work will give us a better insight into the world around us. This work will grow our economy and speed innovation, improving the quality of life for all people.

Unfortunately, the Federal Government has not adequately supported NSF and the physical sciences. I strongly believe that the funding disparity between the life sciences and the physical sciences has grown too large. This funding imbalance is alarming because it directly jeopardizes our Nation's ability to lead the world in scientific innovation. Further, we are jeopardizing the work of the National Institutes of Health because we are undermining the physical sciences, which provide the underpinning for medical technological advances.

Inadequate funding for NSF also hurts our economy and the creation of good jobs. In recent years, there has been an outcry of outsourcing jobs to other countries. The best remedy to this issue is not protectionism but investing in the education and skills of our future workforce. This means better math and science education and technological skills, such as computer literacy. This is also a major part of NSF's mission.

Sadly, the budget request for NSF does not provide it with the adequate resources to meet its mission. While Dr. Marburger and our friends at OMB will state that NSF's budget is one of the few increases in the Federal budget, it does not give me any solace. This is especially disappointing given the efforts of myself, Senator Mikulski, and many of my other colleagues to double the funding of NSF. We have fallen off the path for doubling NSF's budget, but we must not give up. This must remain one of our highest priorities, not of the subcommittee, but also the Nation. This must mean a greater effort by the research and high-tech sector in advocating and "selling" the virtues of NSF to the general public.

I recognize that there are significant funding shortfalls throughout the Federal budget, including some notable accounts within the VA–HUD jurisdiction such as VA medical care, HUD CDBG, and EPA Clean Water SRF. It is obviously going to be a major challenge to find additional funds for NSF for fiscal year 2006. Nevertheless, I am committed to NSF and I want to work with the administration to increase NSF's budget as we move forward.

Given the constrained funding environment, it is even more critical that the National Science Board develop a long-term vision for NSF. In other words, we need

a strategy that outlines how we can get the biggest bang for our buck through programs and activities supported by NSF. This does not mean how NSF will alter its grant size and duration. This means articulating a vision for the future of science and technology, including the next bold cutting-edge areas of research. We also need a plan on how NSF will lead the research community in meeting these new bold challenges. The Board is ideally suited for this responsibility and I believe strongly that it is a core activity of the Board's mission.

One of the specific areas that the Board should examine is the future of our Nation's math and science education. In this budget request, the administration has frankly made some disturbing cuts to NSF's education portfolio, especially to those programs serving K–12 education. Every major assessment of math and science has shown how far our country's students have fallen behind the rest of the world in math and science proficiency. In one recent study, our 8th grade students were outperformed by eight countries in science and by 14 countries in math including Latvia and Malaysia. That is simply unacceptable. We must obviously address this problem before it is too late.

Our scientific education and research system must also ensure that no one is left behind. I am pleased that NSF's budget recognizes the importance of broadening the participation of its programs to under-represented groups such as minorities, women, and people with disabilities. Nevertheless, while OMB did not continue its routine practice of the past in cutting these types of programs, flat-funding them in this budget request is still disappointing.

Moreover, flat-funding programs that support under-represented groups is hurting our ability to address a growing national crisis where there is a shortage of new homegrown scientists and engineers. We are not attracting enough young students, especially minorities, into these disciplines. We cannot continue to rely on using foreign students to stay in the United States and fill the gap created by retiring engineers and scientists.

In addition to the education programs, I have a strong interest in nanotechnology. The budget request provides NSF with $344 million for this important program. There is a tremendous amount of excitement about nanotechnology because of its far-reaching benefits from computers to manufacturing processes to agriculture to medicine.

As everyone knows, I am a big supporter of plant biotechnology because it has generated exciting possibilities for improving human health and nutrition. The impressive research being done with plant genomics can eventually be a very powerful tool of addressing hunger in many developing countries such as those in Africa and Southeast Asia. I am pleased by the recent progress on sequencing the maize genome led by researchers at the Donald Danforth Plant Science Center and the collaboration between the University of Missouri-Columbia and Nepal on oilseeds from soybeans. I thank Dr. Clutter for her work on these efforts and look forward to hearing more about it from her.

In addition to my concerns about funding, I address one particular area of concern. Specifically, I remain troubled by the Foundation's continuing deficiencies in managing and overseeing its large research facility projects. Without going into detail, the Inspector General's statement for the record indicates that NSF's progress in addressing its large facility management problems has been slow. I understand that you, Dr. Bement, have taken these issues more seriously than your predecessor but I need your firm commitment that you will immediately implement the IG and National Academy of Sciences' recommendations to correct these problems. I also believe that the Board should get more heavily involved in this matter. Lastly, the Board and the Foundation must finalize the priority-setting process guidelines for large research facilities. I do not want to hear any more excuses. This is not rocket science.

I look forward to hearing the testimony of all the witnesses today and I now turn to my colleague and ranking member, Senator Mikulski, for her statement.

Senator MIKULSKI. Good morning, everybody. Senator Bond, it is the vagaries of traffic coming in from Baltimore.

Why do we not go to our witnesses and then when I go to my questions, I will give my opening statement. It gives me a chance to kind of regroup.

STATEMENT OF DR. JOHN H. MARBURGER, III

Senator BOND. Dr. Marburger.

Dr. MARBURGER. Thank you, Chairman Bond and Ranking Member Mikulski, members of the subcommittee. I am happy to appear before you once again to discuss the President's R&D budget for the fiscal year 2006 and I would like to thank you, Mr. Chairman, for your strong words of support for basic research and for research at NSF. We agree completely about the importance of science done by this agency. It is central to the scientific enterprise and a major funder of research in universities.

As you know, despite the exceptional pressures on this budget, it does propose an increase in Federal R&D funds. The budget does maintain a strong focus on winning the war against terrorism while moderating the growth in overall spending, and this focus is reflected in the proposed R&D investments. The administration has made difficult choices and maintains strength in priority areas such as nanotechnology, information technology, and so forth. Furthermore, while overall non-security discretionary spending is reduced by 1 percent, non-security R&D is not correspondingly diminished. The fiscal year 2006 proposal preserves the substantial increases made with your support during the first term of this administration, and my written testimony summarizes the extraordinary growth of R&D funding during the past 4 years.

BUDGET REQUEST

This budget requests $132.3 billion for Federal R&D, an increase of $733 million over the current year's 2005 R&D budget, which is a record. The budget allocates 13.6 percent of the total discretionary outlays to R&D which is the highest level in 37 years. Nondefense R&D accounts for 5.6 percent of the total discretionary outlays, an amount significantly greater than the 5 percent average over the last three decades.

So in my oral testimony, I am going to focus first on the OSTP budget, which is appropriated by this subcommittee, and then mention just very brief highlights on agency budgets within the jurisdiction of this subcommittee. And then Dr. Bement and Dr. Washington have much more detail about the budget of the National Science Foundation.

So first, OSTP. As you know, OSTP has primary responsibility in the White House for prioritizing and recommending Federal R&D, as well as for coordinating interagency research initiatives. The fiscal year 2006 request for my office is $5,564,000, which represents a net decrease of about 12 percent below the 2005 enacted level. The major contributing factor for this reduction is that more than $650,000 previously required to cover our costs of after-hour utilities and space rental is now requested by the Office of Administration within the Executive Office of the President's budget as part of its effort to administer centrally common enterprise services. So this explains a major shift in how the budget is put together.

The 2006 estimate reflects our continuing commitment to operate more efficiently and cost effectively without compromising the essential elements of a high-caliber science and technology agency, which is to say high-quality personnel. We continue to reduce funding in many object classes, non-personnel classes, such as equipment and transportation of things rather than people, to meet our

operating priorities. And we will continue to provide high quality support to the President and information to Congress, as well as to fulfill significant national homeland security and emergency preparedness responsibilities.

I will be glad to answer more questions about the OSTP budget, if there are any, but let me briefly summarize just in one bullet each, the budgets for the three agencies of this committee.

First, as you noted, NSF's budget would increase by 2.4 percent to $5.6 billion in fiscal year 2006. This is, as you noted, an extremely important centerpiece for the Nation's science budget.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The request for NASA is $16.46 billion which is also a 2.4 percent increase from 2005, which does reflect a strong commitment by the administration to the missions of this agency. This budget request also makes some hard decisions, Mr. Chairman, trading off some projects with high technical risks to maintain others with high scientific value.

ENVIRONMENTAL PROTECTION AGENCY

In EPA, the science and technology request is $792 million, which is a 2 percent increase over the previous year enacted, even before removing $70 million in earmarks.

We have a number of interagency initiatives which my office has responsibility for coordinating. With President Bush's 2006 budget request of $2.2 billion for the Network and Information Technology R&D initiative, the investment in this area over 5 years will total more than $10.4 billion.

The National Nanotechnology initiative, which you expressed interest in and have supported strongly, President Bush's 2006 budget provides over $1 billion for this multi-agency program, bringing the total investment under this program to $4.7 billion.

We continue to support climate change, approximately $1.9 billion, and with this request the administration will have invested more than $9 billion over 5 five years to improve our understanding of the global climate system.

The hydrogen fuel initiative has a budget request of $260 million, which is an increase of 16 percent from 2005 enacted. This initiative remains on track to meet President Bush's 5-year $1.2 billion commitment to hydrogen research and development announced in his State of the Union address in 2003.

And in homeland security, the Science and Technology Directorate funding is to increase from $1.1 billion to $1.4 billion. The R&D there is focused on countering chemical, biological, radiological, nuclear, and other catastrophic threats.

PREPARED STATEMENT

So, Mr. Chairman and members of the subcommittee, America's science and technology capabilities are the envy of the world. I believe the President's fiscal year 2006 budget proposal maintains and selectively strengthens these capabilities in areas that are important to the Nation's national, homeland, and economic security.

And I would be pleased to answer questions about these or other aspects of the budget. Thank you.

[The statement follows:]

PREPARED STATEMENT OF DR. JOHN H. MARBURGER, III

Chairman Bond, Ranking Minority Member Mikulski, and members of the subcommittee, I am pleased to appear before you once again to discuss the President's research and development (R&D) budget. As I have said many times before, I greatly appreciate the effective working relationship between our office and your committee, which I believe has resulted in good outcomes for the Nation's science and technology enterprise.

The budget this year is subject to considerable pressure, as you know, and the President is committed to cutting the budget deficit in half by 2009. These factors make this year's budget proposal the tightest in nearly two decades.

Despite these pressures, Federal R&D funds will increase in the President's Fiscal Year 2006 Budget. The budget maintains a strong focus on winning the war against terrorism, while moderating the growth in overall spending, and this focus is reflected in the proposed R&D investments. The administration has also maintained high levels of support for priority areas such as nanotechnology, information technology, the hydrogen initiative, and space exploration. Furthermore, while overall "non-security" discretionary spending is reduced by 1 percent, "non-security" R&D is not correspondingly diminished. The fiscal year 2006 proposal preserves the substantial increases made—with your support—during the first term of this administration. This treatment of R&D is consistent with the President's commitment to science and technology and the vital role they play in meeting the Nation's goals for national and economic security and the quality of life.

Comparing R&D investments in this administration with investments in other top national priorities demonstrates this commitment: from fiscal year 2001 to this fiscal year 2006 proposal, Federal spending on Department of Homeland Security (DHS) activities will have increased 83 percent; Department of Education programs are up 40 percent; and Department of Defense spending is up 37 percent. At the same time total Federal investment in R&D will have increased 45 percent. The percentage increase in R&D has been second only to the increase in the Department of Homeland Security during President Bush's first 5 budget years.

This historic increase in R&D has not been confined to a single agency or field of science. It does include a significant investment in defense R&D, whose value to the Nation's technical enterprise extends well beyond the defense establishment. Defense R&D funds significant university and private sector research, supports a large number of scientists, engineers and technical experts, and is instrumental in training and recruiting the next generation of technical talent for the Nation. Non-defense R&D, however, has also benefited from similar large increases during the past 5 years.

I am emphasizing these historical data to provide a context for this year's request. Within a pattern of overall budget constraint, funds are provided that we believe are appropriate to maintain and refine the large program increases of previous years. Within the pattern of detailed agency budgets, priorities have been established and choices made that preserve the Nation's investment in the critically important assets of science and technology.

THE PRESIDENT'S FISCAL YEAR 2006 R&D BUDGET

The President's Fiscal Year 2006 Budget requests $132.3 billion in Federal Research and Development funds, an increase of $733 million over this year's (2005) record R&D budget. The Budget allocates 13.6 percent of total discretionary outlays to R&D—the highest level in 37 years. Non-defense R&D accounts for 5.6 percent of total discretionary outlays, an amount significantly greater than the 5.0 percent average over the past three decades.

While non-defense discretionary program budget authority is reduced by 0.26 percent in this proposal, non-defense R&D funds are increased by 0.74 percent. The category of Basic Research is maintained near its historically high level at $26.6 billion in fiscal year 2006, slightly down from $26.9 billion in fiscal year 2005.

The fiscal year 2006 request for the "Federal Science and Technology" (FS&T) budget, (a focus more on basic research, as recommended by the National Academy of Sciences to) is $61 billion, or a 1 percent reduction from the fiscal year 2005 enacted level. However, this reduction is entirely attributable to the removal of earmarks, most notably in the Department of Defense (over $1 billion) and the Department of Agriculture (approximately $340 million). The President's Fiscal Year 2006

Budget request does not continue fiscal year 2005 earmarks beyond fiscal year 2005, instead increasing programs of priority to research agencies. Earmarks are not consistent with using funds most efficiently to target agency missions or to support the best research. The administration strongly supports awarding research funds based on merit review through a competitive process, and we are prepared to work with Congress to achieve consistency in Legislative and Executive priorities to fund the best scientific research possible.

Not all programs can or should receive equal priority, and this budget reflects priority choices consistent with recommendations from numerous expert sources. In particular, this budget is informed by recommendations from the President's Council of Advisors on Science and Technology (PCAST), and reflects an extensive process of consultation among the Federal agencies, the Office of Management and Budget (OMB), and the Office of Science and Technology Policy (OSTP).

As in previous years this R&D budget highlights collaborations among multiple Federal agencies working together on broad themes. I will describe some individual agency highlights, followed by the five multi-agency R&D priorities highlighted in the President's Fiscal Year 2006 Budget: Networking and Information Technology R&D; National Nanotechnology Initiative; Climate Change R&D; Hydrogen Fuel Initiative; and Homeland Security R&D.

AGENCY BUDGET HIGHLIGHTS

Office of Science and Technology Policy (OSTP)

The Office of Science and Technology Policy, which I lead, has primary responsibility in the White House for prioritizing and recommending Federal R&D, as well as for coordinating interagency research initiatives. The fiscal year 2006 request for OSTP is $5,564,000, which represents a net decrease of $764,000, or 12.1 percent, below the fiscal year 2005 enacted level. The major contributing factor for this reduction is that $653,000, previously required to cover OSTP's cost of after-hour utilities and space rental, is now requested by the Office of Administration, within the Executive Office of the President, as part of its effort to centrally administer common enterprise services.

The estimate for fiscal year 2006 reflects OSTP's continuing commitment to operate more efficiently and cost-effectively without compromising the essential element of a top-caliber science and technology agency—high quality personnel. OSTP continues to reduce funding in many object classes, such as equipment and transportation of things, to meet operating priorities. OSTP will continue to provide high quality support to the President and information to Congress, as well as to fulfill significant national and homeland security and emergency preparedness responsibilities.

National Science Foundation (NSF)

Funds are requested to increase the budget for NSF by 2.4 percent to $5.6 billion in fiscal year 2006, 26 percent above 2001's $4.4 billion level. Similar investments in the past have yielded important scientific discoveries, which boost economic growth and enhance Americans' quality of life.

NSF leads two administration priority research areas that promise to strengthen the Nation's economy: the National Nanotechnology Initiative (NNI) and the Networking and Information Technology R&D program (NITRD). NSF-funded nanotechnology research, proposed at $344 million in fiscal year 2006, a 1.6 percent increase over 2005 and 129 percent since 2001, has advanced our understanding of materials at the molecular level and has provided insights into how innovative mechanisms and tools can be built atom by atom. This emerging field holds promise for a broad range of developing technologies, including higher-performance materials, more efficient manufacturing processes, higher-capacity computer storage, and microscopic biomedical instruments and mechanisms. NSF"s investments in NITRD, funded at $803 million in 2006, a 1 percent increase over 2005 and 26 percent since 2001, support all major areas of basic information technology (IT) research. NSF also incorporates IT advances into its scientific and engineering applications, supports using computing and networking infrastructure for research, and contributes to IT-related education for scientists, engineers, and the IT workforce.

Growing concerns about the vulnerability of computers, networks and information systems have prompted increased NSF investments in cyber security research, education and training. The Fiscal Year 2006 Budget provides $94 million for these activities.

Every research discipline in the agency is increased between 1 to 3.5 percent, allowing the grant funding rate to be restored to 21 percent (from 20 percent in 2005). Funding is provided for the five Major Research Equipment (MRE) projects already

approved (Atacama Large Millimeter Array, EarthScope, the IceCube Neutrino Observatory, the Rare Symmetry Violating Processes (RSVP) installation, the National Ecological Observatory Network (NEON), and the Scientific Ocean Drilling Vessel).

In order to most effectively and efficiently support the Nation's polar research activities in Antarctica, funding for three polar icebreakers is being transferred from the U.S. Coast Guard to NSF ($48 million). In the future, this will permit NSF to define the options for refurbishment or replacement of two of the ships, as well as operational options for the third (Arctic) icebreaker.

The Fiscal Year 2006 Budget will continue NSF's efforts to prepare U.S. students for the science and engineering workforce, with funds for 4,600 graduate research fellowships and traineeships. NSF provides annual stipends in these programs of $30,000, which is significantly higher than the average stipend of $18,000 in 2001.

National Aeronautics and Space Administration (NASA)

During the year since the President outlined a bold vision for sustained and affordable human and robotic exploration of space, NASA has restructured its organization and reprioritized its programs. The current human spaceflight programs, Shuttle and International Space Station, are focusing research and technology development on enabling the vision, while requirements are being established for the next generation of space transportation. An exciting array of space science missions are being planned that will enhance our understanding of the solar system, including interactions between the Earth and the space environment, and building observatories that will peer further into the cosmos to understand the origin of the universe, its structure, evolution and destiny.

The President's Fiscal Year 2006 Budget request for NASA is $16.456 billion, a 2.4 percent increase from 2005, reflecting a strong commitment by the administration to pursue the exploration vision. The Fiscal Year 2006 Budget request also makes some hard decisions, canceling some projects with high technical risk and others whose cost estimates would have led to the certain cancellation and delay of several other important programs. The budget request maintains NASA's focus on exploration and science while strengthening the long-term foundation for continued success.

The budget requests about $3.2 billion in fiscal year 2006 for new vehicles and technologies to enable sustained human and advanced robotic exploration far from Earth. NASA has identified the major requirements for a Crew Exploration Vehicle that will carry astronauts to the Moon. NASA plans to perform risk reduction tests in 2008 and stage its first crewed flight by 2014. NASA will also continue pursuing nuclear technologies for space applications, optical communications for high data rate connectivity to space probes, radiation shielding, and other advanced technologies to support the exploration vision. In addition, NASA is pursuing innovative means to engage private industry including offering space prizes to spur innovation.

The budget requests approximately $5.5 billion in fiscal year 2006 to continue advancing our scientific understanding of the Sun, Earth, and planets and to inform decisions regarding appropriate human exploration missions. NASA will also build on its legacy of revolutionizing astronomy by continuing current operations of space telescopes such as Hubble, Chandra, and Spitzer while planning for the next generation of spacecraft that will enhance our ability to find planets around other stars, peer deep into the history of the universe, and improve our understanding of its structure.

The Fiscal Year 2006 Budget continues to fund critical investments in Earth science satellites, technologies, and research. NASA will continue to play a major part in the interagency Climate Change Science Research Program, and contribute to the international initiative on the Global Earth Observing System of Systems.

The budget requests approximately $6.4 billion in fiscal year 2006 for operating the Space Shuttle and continuing assembly and operations of the International Space Station. NASA is examining configurations that meet the needs of both the new space exploration vision and our international partners using as few Shuttle flights as possible to enable Shuttle retirement by 2010, following completion of its role in ISS assembly. In concert with the new vision, NASA will refocus U.S. Space Station research on activities that prepare human explorers to travel beyond low Earth orbit, such as developing countermeasures against space radiation and understanding long-term physiological effects of reduced gravity.

As the United States implements the Vision for U.S. Space Exploration, the administration recognizes the value of effective cooperation with Russia to further our space exploration goals. At the same time, we have to appropriately reflect U.S. nonproliferation policy and objectives in our relationship with Russia. The administration is thus interested in seeking a balanced approach that continues to protect our nonproliferation goals while advancing potential U.S. cooperation with Russia on

the Vision for U.S. Space Exploration. Such a balanced approach must include the Iran Nonproliferation Act of 2000 (INA), which currently complicates cooperation with Russia on the International Space Station (ISS), and will also have an adverse impact on cooperation with Russia on our future space exploration efforts related to human space flight. To that end, the administration looks forward to working with Congress to ensure that the Vision for U.S. Space Exploration is able to succeed while remaining fully consistent with broader U.S. national security and nonproliferation goals.

Environmental Protection Agency (EPA)

The fiscal year 2006 request for science and technology funding at EPA is $792 million, a 2 percent increase over fiscal year 2005, even before removing $70 million in earmarks. This investment supports core Agency programs and strengthens the application of science to EPA regulatory actions and other programs.

The administration is directing $20 million of S&T funding to a new pilot program within EPA that the program offices (e.g., Water, Office of Solid Waste and Emergency Response, Air) would then use to fund applied research in the Office of Research and Development (ORD). This is intended to improve the use of ORD (to avoid duplicative program efforts), coordination between the program offices and ORD, and responsiveness and accountability. This program contributes to the overall increase in S&T funding.

Seventy-nine million dollars in new funding will support homeland security projects and research at EPA related to water security monitoring and surveillance, post-incident building and environmental decontamination, and Environmental Laboratory Preparedness and Response.

The Fiscal Year 2006 Budget requests approximately $65 million for the Science to Achieve Results (STAR) program, which includes a decrease in exploratory research grants. Given the overall tightness of EPA's budget (− 6 percent from 2005 enacted), and the need to fund core programmatic needs, STAR grants, which cannot focus on EPA program needs, were reduced.

Department of Veterans Affairs (VA)

The Fiscal Year 2006 Budget requests that over three quarters of a billion dollars ($786 million) be directly appropriated to VA for medical and prosthetic R&D, an 11 percent increase since fiscal year 2001. Another $866 million is anticipated to be provided from other government agencies and private entities to support VA-conducted research, bringing total VA R&D program resources to $1.7 billion, 3 percent more than fiscal year 2005.

The proposed VA R&D budget provides for a comprehensive intramural research program to acquire veteran-specific medical knowledge and create targeted innovations that address the special health care needs of the Nation's veterans. This includes biomedical disease research, disability rehabilitation R&D, development of best practices for more effective and efficient health care delivery, clinical pharmacological and surgical studies in veterans, and indirect costs. The research is focused on trauma-related illness, sensory loss, military occupational effects, environmental exposures, mental illness, substance abuse, chronic disease and aging.

PRIORITY INITIATIVES

The 2006 budget highlights priority interagency initiatives described briefly below. These initiatives are coordinated through the National Science and Technology Council (NSTC) for which my office has responsibility for day-to-day operations. The Council prepares research and development strategies that cross agency boundaries to form a consolidated and coordinated investment package.

Networking and Information Technology R&D.—With President Bush's Fiscal Year 2006 Budget request of $2.2 billion for the Networking and Information Technology R&D (NITRD) program, the investment in this area over 5 years will total more than $10.4 billion. Research in networking and information technologies underpins advances in virtually every other area of science and technology and provides new capacity for economic productivity. Through active coordination, NITRD agencies mutually leverage resources to make broader advances in networking and information technology than any single agency could attain.

—NSF continues to provide the largest share of Federal NITRD funding, reflecting the Foundation's broad mission as well as its leadership role in coordinating NITRD activities. The fiscal year 2006 request for NSF is $803 million, an $8 million increase from the 2005 estimate.

—High-end computing continues to be a major focus within the NITRD program. In fiscal year 2004, the interagency High End Computing Revitalization Task Force (HECRTF) produced the Federal Plan for High-End Computing, which de-

scribes a roadmap for progress in core technologies for high-end computing, mechanisms for improving access to high-end computing resources, and strategies for improving Federal procurement and coordination of high-end systems. The Fiscal Year 2006 Budget reflects the continuation of NITRD activities that are consistent with recommendations described in the Federal Plan, such as investments in new high-end systems by NASA and DOE's Office of Science.

—NASA continues to emphasize high-end computing within its NITRD portfolio through the recently-completed acquisition of the Project Columbia supercomputer, a portion of which NASA plans to make available to other Federal users. Following completion of the acquisition of Columbia, NASA's expenditure in high-end computing is normalizing at a lower level.

—The Department of Energy's (DOE's) Office of Science has also committed to operate their new Leadership Class Computing facility at the Oak Ridge National Laboratory as a national user facility. DOE's fiscal year 2006 request of $25 million for the Leadership facility brings that Federal investment to $100 million.

National Nanotechnology Initiative.—President Bush's Fiscal Year 2006 Budget provides over $1 billion for the multi-agency National Nanotechnology Initiative (NNI), bringing the total NNI investment under this administration to $4.7 billion. This sustained investment will advance our understanding of the unique phenomena and processes that occur at the nanometer scale and expedite the responsible use of this knowledge to achieve advances in medicine, manufacturing, high-performance materials, information technology, and energy and environmental technologies.

—The largest investments continue to be made by NSF where the fiscal year 2006 NSF request is $344 million, an increase of $6 million over the 2005 estimate.

—DOE contribution to the initiative ramps up dramatically with commencement of operations in four of its five new major Nanoscale Science Research Centers located across the country. The Centers will provide research equipment and infrastructure that will be broadly available to researchers from across the scientific research community. Construction completion keeps total DOE NNI spending flat in fiscal year 2006, but a portion of construction roll-off funds are made available for operational support.

—The fiscal year 2006 request of $147 million by the Department of Health and Human Services (HHS) includes programs at the National Institutes of Health (NIH) emphasizing nanotechnology-based biomedical advances occurring at the intersection of biology and the physical sciences, such as the National Cancer Institute's Alliance for Nanotechnology in Cancer, and at the National Institute of Occupational Safety and Health (NIOSH) that address implications and applications of nanotechnology for health and safety in the workplace.

—With the addition of NIOSH, 11 Federal agencies currently fund nanotechnology research and development under the NNI, and another 11 participate in coordination. Agencies that have joined the NNI as participants over the past year include the U.S. Patent and Trademark Office and the Consumer Product Safety Commission, indicating the increasing importance of commercialization activities.

Climate Change Research and Development.—The Fiscal Year 2006 Budget continues strong support for the Climate Change Science Program (CCSP) and the Climate Change Technology Program (CCTP).

—The CCSP budget continues to support the goals outlined in the CCSP Strategic Plan, which was released in July 2003. Beginning in fiscal year 2006, CCSP will formally track the expected actions, deliverables, and milestones for each of its programs in order to assess overall performance.

—The Fiscal Year 2006 Budget proposes approximately $1.9 billion to fund CCSP, virtually the same as 2005 despite reductions in NASA (−$102 million) due to re-prioritization of programs. With this request, the administration will have invested more than $9 billion over 5 years to improve our understanding of the global climate system.

—The Fiscal Year 2006 Budget provides approximately $2.9 billion for the U.S. Climate Change Technology Program (CCTP), which supports research, development, deployment, and voluntary programs to reduce greenhouse gas emissions via renewable energy, fossil energy and nuclear energy, efficiency improvements, and carbon sequestration.

—In 2005, the CCTP will publish a draft Strategic Plan and solicit comments from the scientific community and the public. The CCTP will also identify within its portfolio a subset of National Climate Change Technology Initiative (NCCTI) priority activities.

Hydrogen Fuel Initiative.—The Hydrogen Fuel Initiative (HFI) seeks to develop new science and technology to support a major shift toward the use of hydrogen as an energy medium, particularly for transportation. The Fiscal Year 2006 Budget for HFI is $260 million, $35 million (16 percent) greater than the fiscal year 2005 level. The Initiative remains on track to meet President Bush's 5-year, $1.2 billion commitment to hydrogen research and development announced in his 2003 State of the Union address. Some highlights include:

—$20 million, an $11 million (122 percent) increase over fiscal year 2005, will fund the Nuclear Hydrogen Initiative. This initiative will conduct the R&D on enabling technologies, demonstrate nuclear-based hydrogen production technologies, and study potential hydrogen production schemes to support the President's vision for a future Hydrogen economy.

—$33 million for fundamental research within DOE's Office of Science. This research seeks to overcome key technical hurdles in hydrogen production, storage, and conversion, by seeking revolutionary breakthroughs in areas such as non-precious-metal catalysts, high-temperature membrane materials, multifunctional nanoscale structures, biological and photoelectrochemical hydrogen production, and precision manufacturing processes.

—Congressional earmarking is slowing progress on HFI, however, and may jeopardize the ability of the administration to achieve its goal of a 2015 decision by industry to commercialize fuel cell vehicles and infrastructure. In 2005, DOE's Hydrogen Technology Program, a key component of HFI, received 17 earmarks totaling $37 million, about 40 percent of the program's funding.

Homeland Security.—Technology continues to help secure our Nation against terrorism. Research and development over the past 3 years in detectors against weapons of mass destruction (WMD) threat agents, medical countermeasures to improve public health preparedness and to protect our Nation's food and livestock, and advances in protecting the First Responders are moving from laboratory to operational use. The President's Fiscal Year 2006 Budget continues an aggressive investment in research, development, and the research infrastructure so as to further enhance our Nation's security. Priority research areas include:

—$227 million to fund the creation of a Domestic Nuclear Defense Office (DNDO) in DHS, whose responsibility will be to develop a comprehensive system to detect and mitigate any attempt to import or transport a nuclear explosive device, fissile material or radiological material intended for illicit use within the United States.

—$1.8 billion to the HHS to fund research and development of countermeasures against biological, chemical and radiological threat agents.

—$596 million is allocated for the U.S. Department of Agriculture, HHS and DHS to improve food and agriculture defense. This includes funding for research on exotic and emerging diseases of plants and animals and to prevent and detect food contamination, expanding and improving laboratory facilities, and enhancing disease monitoring, surveillance and vaccine storage.

—$94 million will fund new and ongoing research at EPA related to their role in water security and post-incident decontamination. Systems for monitoring and surveillance of terrorist threat agents in drinking water will be piloted in several U.S. cities. Decontamination capabilities will be strengthened by testing new cleaning methods, systems and antimicrobial products for buildings and outdoor areas and by conducting risk assessment work to support decontamination/revision of cleanup guidance goals.

MANAGING THE FEDERAL RESEARCH BUDGET

Consistent with the President's Management Agenda, the administration is improving the effectiveness of the Federal Government's investments in R&D by applying transparent investment criteria in analyses that inform recommendations for program funding and management. R&D performance assessment must be done carefully to avoid negatively impacting scientific productivity. Research often leads scientists and engineers down unpredictable pathways with unpredictable results. This characteristic of research requires special consideration when measuring an R&D program's performance against its initial goals.

Elements of good R&D program management include establishing priorities with expected results, specifying criteria that programs or projects must meet to be started or continued, setting clear milestones for gauging progress, and identifying metrics for assessing results.

The R&D Investment Criteria accommodate the very wide range of R&D activities, from basic research to development and demonstration programs, by addressing three fundamental aspects of R&D:

—*Relevance*.—Programs must be able to articulate why they are important, relevant, and appropriate for Federal investment;
—*Quality*.—Programs must justify how funds will be allocated to ensure quality; and
—*Performance*.—Programs must be able to monitor and document how well the investments are performing.

R&D projects and programs relevant to industry are expected to meet criteria to determine the appropriateness of the public investment, enable comparisons of proposed and demonstrated benefits, and provide meaningful decision points for completing or transitioning the activity to the private sector.

OSTP and OMB are continuing to assess the strengths and weaknesses of R&D programs across the Federal Government in order to identify and apply good R&D management practices throughout the government.

CONCLUSION

Making choices is difficult even when budgets are generous. But tight budgets have the virtue of focusing on priorities and strengthening program management. This year's R&D budget proposal maintains levels of funding that allow America to maintain its leadership position in science and move ahead in selected priority areas. It is responsible in its treatment of security-related science and technology, and it rewards good planning and management.

America currently spends one and a half times as much on Federally funded research and development as Europe does, and three times as much as Japan, the next highest investor in R&D. Our scientists collectively have the best laboratories in the world, the most extensive infrastructure supporting research, the greatest opportunities to pursue novel lines of investigation, and the most freedom to turn their discoveries into profitable ventures if they are inclined to do so.

We lead not only in science, but also in translating science to economically significant products that enhance the quality of life for all people.

This budget will sustain this leadership and maintain science and technology capabilities that are the envy of the world. I would be pleased to respond to questions.

Senator BOND. Thank you very much, Dr. Marburger. Let me point out, in the interest of full disclosure, the 2.4 percent increase actually—part of it, $48 million, is attributed to transferring from the National Science Foundation funds to fund the icebreaking costs for operations in Antarctica. This has been in the budget, so the true increase for NSF is $84 million, or only a 1.5 percent increase, and it is still significantly below the high-water mark for this budget in 2004. It is $47 million short of where we were 2 years ago. Thank you very much, Dr. Marburger.

Dr. Bement.

NATIONAL SCIENCE FOUNDATION

STATEMENT OF DR. ARDEN L. BEMENT, JR., DIRECTOR

Dr. BEMENT. Thank you, Chairman Bond, Ranking Member Mikulski. It is a pleasure to appear before you today to discuss NSF's fiscal year 2006 budget request and to express my personal appreciation for the strong support you and your colleagues have shown for NSF over the years.

BUDGET REQUEST

NSF's fiscal year 2006 budget request reflects the administration's support for our mission. In light of the tight fiscal climate, we have fared relatively well. For the coming fiscal year, NSF requests $5.6 billion, an increase of $132 million, or 2.4 percent over last year's appropriation levels.

The total funding for NSF research and related activities account in this request increases by $113 million, nearly 3 percent, to $4.33 billion. As you pointed out, of this amount, $48 million is trans-

ferred to NSF from the Coast Guard for operation and maintenance expenses related to icebreaking in the Antarctic. We are working with the Coast Guard to explore options for funding icebreaker services in support of science within available NSF resources.

Maintaining strong and robust research programs in support of individual investigators and small groups of researchers is at the core of NSF's mission. In many scientific disciplines, NSF is a major source for Federal funding to academic institutions. One goal in this year's request is to strengthen our research support across all areas in our portfolio.

Research, however, is only part of the NSF equation. Our mission includes education as well. In our request, we will maintain a total investment of almost $400 million for programs with a proven track record in broadening the participation of under-represented groups in the science and engineering arena. The Louis Stokes Alliances for Minority Participation, the Centers for Research Excellence in Science and Technology, and the Robert Noyce Scholarship Program, the STEM Talent Extension Program, and EPSCoR, just to name a few, are protected from reductions in this request.

Overall, the Education and Human Resources Directorate at NSF will be funded at $737 million, down 12.4 percent from last year. Although we have found it necessary to make cuts in these programs, we are also finding ways to leverage other resources in support of education. We will, for example, continue to encourage the types of partnerships between researchers and students in our R&RA portfolio that provides hands-on learning experiences.

We are committed to ensuring that future generations gain the skills, knowledge, and insight that comes from working at the frontier of discovery. We will also maintain our strong working relationship with the Department of Education to implement best practices in their initiatives supporting math and science education.

RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION ACCOUNT

While there are no new starts in our major research equipment and facilities construction account, NSF is increasing funding in this account by $76 million, for a total of $250 million, to continue to fund ongoing projects.

NSF directly supports roughly 200,000 scientists, educators, and students and processes over 40,000 proposals a year. Balancing the needs of a growing, increasingly complex portfolio with new requirements for security, e-business practices, accountability, and award oversight presents an ongoing challenge. In order to meet these management goals, NSF will increase funding for activities that advance organizational excellence by $46 million to a total of $336 million. This increase will allow for the recruitment of 23 additional full-time employees, enhancement of and security of our e-government systems and continuing the implementation of the business analysis recommendations that we have been working on during the past 3 years.

PREPARED STATEMENTS

Mr. Chairman, I have only touched upon the variety and richness of the NSF portfolio. NSF research and education efforts con-

tribute greatly to the Nation's innovation-driven economy and help keep America at the forefront of science and engineering. NSF-supported researchers produce leading-edge discoveries that serve society and spark the public's curiosity and interest. Extraordinary discoveries coming from dozens of NSF programs are enriching the entire science and engineering enterprise and making education fun, exciting, and achievement-oriented.

Thank you and I will be glad to answer any of your questions.

Senator BOND. Thank you, Dr. Bement.

[The statements follow:]

PREPARED STATEMENT OF ARDEN L. BEMENT, JR.

Chairman Bond, Ranking Member Mikulski, and members of the committee, thank you for this opportunity to discuss NSF's Fiscal Year 2006 Budget Request. It is a pleasure to appear before you today. For over 50 years, NSF has been charged with being a strong steward of the scientific discovery and innovation that has been crucial to increasing America's economic strength, global competitiveness, national security, and overall quality of life.

For many years, the United States economy has depended heavily on investments in research and development—and with good reason. America's sustained economic prosperity is based on technological innovation made possible, in large part, by fundamental science and engineering research. Innovation and technology are the engines of the American economy, and advances in science and engineering provide the fuel.

Investments in science and technology—both public and private—have driven economic growth and improved the quality of life in America for the last 200 years. They have generated new knowledge and new industries, created new jobs, ensured economic and national security, reduced pollution and increased energy efficiency, provided better and safer transportation, improved medical care, and increased living standards for the American people. Innovation and technology have become the engines of the American economy, and advances in science and engineering provide the fuel.

Investments in research and development are among the highest-payback investments a Nation can make. Over the past 50 years technological innovation has been responsible for as much as half of the Nation's growth in productivity.

Sustaining this innovation requires an understanding of the factors that contribute to it. The Council on Competitiveness, a consortium of industry, university, and labor leaders, has developed quantitative measures of national competitiveness: the number of R&D personnel in the available workforce; total R&D investment; the percentage of R&D funded by private industry; the percentage of R&D performed by the university sector; spending on higher education; the strength of intellectual property protection, openness to international competition; and per capita gross domestic product. A similar set of indicators has been developed by the World Bank Group, and voluminous data have been compiled by NSF. The important point underscored by these indicators is that, for America to remain a prosperous and secure country, it must maintain its technological leadership in the world.

Perhaps the Council on Competitiveness' 2004 National Innovation Initiative report captured it best by simply stating, "Innovation has always been the way people solved the great challenges facing society."

Often times, the connection between an area of research, or even a particular scientific discovery, and an innovation may be far from obvious. Fundamental research in physics, mathematics and high-flux magnets supported by NSF led to the development of today's Magnetic Resonance Imaging (MRI) technology. Today, MRIs are used widely to detect cancer and internal tissue damage. Fundamental research on extremophiles, or microorganisms living in extreme environments, led to the polymerase chain reaction, a procedure paramount to modern biotechnology, as well as one that allows us to use DNA for forensic evidence. Continuing progress in basic science and engineering research promises more discoveries as well as further improvements in living standards and economic performance.

And still, science and engineering is becoming an ever-larger portion of our Nation's productivity. In the early 1950's, Jacob Bronowski wrote, "The world today is powered by science." I would take this premise one step farther, "No science; no economic growth." Our current level of scientific and technological productivity is what keeps us ahead of our global competitors as the playing field continues to become more level.

NSF has helped advance America's basic science and engineering enterprise for over 50 years. Despite its small size, NSF has an extraordinary impact on scientific and engineering knowledge and capacity. While NSF represents only 4 percent of the total Federal budget for research and development, it accounts for 50 percent of non-life science basic research at academic institutions. In fact, NSF is the only Federal agency that supports all fields of science and engineering research and the educational programs that sustain them across generations. NSF's programs reach over 2,000 institutions across the Nation, and they involve roughly 200,000 researchers, teachers, and students.

NSF specifically targets its investments in fundamental research at the frontiers of science and engineering. Here, advances push the boundaries of innovation, progress and productivity.

Compared to other commodities, knowledge generated from basic science investments is unique, long lasting and leverages on itself. Knowledge can be shared, stored and distributed easily, and it does not diminish by use. Incremental advances in knowledge are synergistic over time. NSF is proud to have built the foundation for this knowledge base through decades of peer-reviewed, merit-based research.

FISCAL YEAR 2006 BUDGET REQUEST

The Foundation's Fiscal Year 2006 Budget Request reflects the administration's confidence in our continuing with this mission. In light of the tight fiscal climate, NSF fared relatively well. For the coming fiscal year, NSF requests $5.6 billion, an increase of $132 million, or 2.4 percent, over last year's appropriated levels.

At a time when many agencies are looking at budget cuts, an increase in our budget underscores the administration's support of NSF's science and engineering programs, and reflects the agency's excellent management and program results.

With the wealth of benefits that investments in science and engineering bring to the Nation, perhaps none is more powerful than the capability to respond quickly and effectively to challenges of all kinds. NSF's programs reach over 2,000 institutions across the Nation, and they involve researchers, teachers, and students in all fields of science and engineering and at all levels of education. They also keep us abreast of scientific advances throughout the world. This breadth of activity in and of itself creates a vital national resource, as it provides the Nation with a constantly invigorated base of knowledge, talent, and technology. For example, in areas ranging from terrorism threats to natural disasters, NSF's ongoing support of research in areas such as advanced information technologies, sensors, and earthquake engineering ensures a broad base of expertise and equipment that allows the science and engineering community to respond quickly in times of need and in partnership with scientists and engineers from other countries.

Four funding priorities centering this year's request are designed to address current national challenges and strengthen NSF's core research investments. They include: (1) Strengthening core disciplinary research; (2) Providing broadly accessible cyberinfrastructure and world-class research facilities; (3) Broadening participation in the science and engineering workforce; and (4) Sustaining organizational excellence in NSF management practices.

This year's investments will strengthen the core disciplines that empower every step of the process from discovery at the frontier to the development of products, processes, and technologies that fuel the economy. At the same time, NSF's investments will enable increasing connections and cross-fertilization among disciplines.

NSF's focus on a clear set of priorities will help the Nation meet new challenges and take advantage of promising opportunities, while at the same time spurring the growth and prosperity needed to secure the Nation's long-term fiscal balance. The fiscal year 2006 budget will emphasize investments that address established interagency research priorities, meet critical needs identified by the science and engineering community, and advance the fundamental knowledge that strengthens the Nation's base of innovation and progress. NSF will respond to these challenges by supporting the best people, ideas, and tools in the science and engineering enterprise, and by employing the best practices in organizational excellence.

RESEARCH AND RELATED ACTIVITIES ACCOUNT

For fiscal year 2006, total funding for NSF's Research and Related Activities account increases by $113 million—nearly 3 percent—to $4.33 billion. This increase largely reflects NSF efforts to strengthen fundamental research in the core scientific disciplines as well as promote emerging areas of research. The fiscal year 2006 portfolio balances research in established disciplines with research in emerging areas of opportunity and cross-disciplinary projects. The most fertile opportunities sometimes lie in novel approaches or a collaborative mix of disciplines.

Maintaining a strong and robust core is critical during such a budget climate as certain segments of the academic community rely heavily on NSF funding. In many scientific disciplines, NSF is a major source of Federal funding to academic institutions, including mathematics (77 percent), computer sciences (86 percent), the social sciences (49 percent), the environmental sciences (50 percent), engineering (45 percent) and the physical sciences (39 percent).

Research, however, is only part of the NSF equation. Training the Nation's next generation of scientists and engineers is another key component of NSF's mission, and critical for maintaining economic prosperity and global competitiveness. Here, we are finding ways to leverage our resources. For example, as we strengthen our core disciplinary research programs, we will continue to encourage the types of partnerships between researchers and students that provide hands-on experience while ensuring that future generations gain the skills, knowledge and insight that come from working at the frontier of discovery.

PROVIDING BROADLY ACCESSIBLE CYBERINFRASTRUCTURE AND WORLD-CLASS RESEARCH FACILITIES

Twenty-first century researchers and the students who will bring new skills into the workforce rely on cutting edge tools. In fiscal year 2006, NSF is placing a high priority on investments in cyberinfrastructure and in unique, widely shared research equipment and facilities.

An infrastructure of power grids, telephone systems, roads, bridges and rail lines buttressed this Nation's industrial economy and allowed it to prosper. However, cyberinfrastructure—a networked system of distributed computer information and communication technology—is the lynchpin of today's knowledge based economy. In fiscal year 2006, NSF cyberinfrastructure investments total $509 million, an increase of $36 million (7.6 percent) over the fiscal year 2005 level.

Modeling, simulation, visualization, data storage and communication are rapidly transforming all areas of research and education. NSF investments in cyberinfrastructure support a wide mix of projects and encourage participation from broad segments of the research community that rely on such technology as they tackle increasingly complex scientific questions. Thanks to cyberinfrastructure and information systems, today's scientific tool kit includes distributed systems of hardware, software, databases and expertise that can be accessed in person or remotely. In fact, programs such as Teragrid, a multi-year effort to create the world's largest distributed infrastructure for open scientific research, are specifically designed to transcend geographic boundaries and accelerate virtual collaborations.

NSF is also increasing funding for the Major Research Equipment and Facilities Construction by $76 million or 44 percent, in fiscal year 2006 for a total of $250 million. There are no new starts, but we will continue to fund ongoing projects. Work will proceed on five major facilities that will serve a spectrum of the science and engineering community. These include world-class astronomy, physics, and geosciences observatories identified as the highest priorities for advancing science and engineering.

—The Atacama Large Millimeter Array (ALMA), in Chile, is a model of international collaboration. It will be the world's largest, most sensitive radio telescope.

—The EarthScope facility is a multi-purpose array of instruments and observatories that will greatly expand the observational capabilities of the Earth Sciences and permit us to advance our understanding of the structure, evolution and dynamics of the North American continent.

—Ice Cube, the world's first high-energy neutrino observatory will be located under the ice at the South Pole.

—RSVP, the Rare Symmetry Violating Processes Project will enable cutting edge physics experiments to study fundamental properties of nature. Studies will probe questions ranging from the origins of our physical world to the nature of dark matter.

—SODV, the Scientific Ocean Drilling Vessel, is a state-of-the-art ship that will be a cornerstone of a new international scientific ocean drilling program. Ocean core sediment and rock collected by the vessel will help investigators explore the planet's geological history and probe changes in the earth's oceans and climate.

Additionally, In fiscal year 2006, NSF will assume the responsibility, from the U.S. Coast Guard, for funding the costs of icebreakers that support scientific research in polar regions; $48 million was transferred for those purposes.

BROADENING PARTICIPATION

To feed our knowledge-based economy, the Nation needs to capitalize on all of its available talent to produce a workforce of skilled technologists, scientists and engineers. That means developing the largely untapped potential of those underrepresented in the science and engineering workforce—minorities, women and persons with disabilities. It also means supporting science education and training in all regions of the country—not just at large universities or in a handful of States.

To achieve these goals, the Fiscal Year 2006 Request maintains a total investment of almost $400 million. Funding will be targeted to programs with a proven track record of progress in these areas. Included in this is $8 million in additional support from the research directorates that will supplement the Education and Human Resources Account to help achieve our goal of broadening science and engineering participation. Working closely with the directorates offers a dual benefit of providing educational opportunities and hands-on research experience to prepare students for the 21st century workforce.

NSF will invest $396.5 million in a range of programs with proven track records. Several highly successful programs for broadening participation—the Louis Stokes Alliances for Minority Participation, the Alliances for Graduate Education and the Professoriate, the Centers for Research Excellence in Science and Technology (CREST), Robert Noyce Scholarship program, STEM Talent Expansion Program and EPSCoR—just to name a few, are secured in this request. Each of these serve as models for integrating educational and research resources to improve recruitment and retention in science and engineering to all sectors of our diverse population.

SUSTAINING ORGANIZATIONAL EXCELLENCE IN NSF MANAGEMENT PRACTICES

NSF directly supports over 210,000 scientists, educators and students and processes over 40,000 proposals a year. Balancing the needs of a growing, increasingly complex portfolio with new requirements for e-business practices, security, accountability, and award oversight presents a challenge. NSF sets high standards for its business practices and strives to create an agile, innovative organization through state-of-the-art business conduct and continual review. In order to meet these management goals, NSF will be increasing funding for activities that advance organizational excellence by $46 million, to a total of $336 million. In addition to critically needed upgrades to our information technology infrastructure, this increase will allow for the recruitment of 25 full-time employees—23 for NSF and one each for the National Science Board and the Office of the Inspector General—which will improve our ability to manage our increasingly complex portfolio.

Expanding our e-government systems and the implementing of our ongoing business analysis recommendations are high priorities for fiscal year 2006.

Over the past 2 years, as part of the administration's Program Assessment Rating Tool, NSF has worked with OMB to rate eight of our investment categories. All of these areas have received the highest rating of Effective. As such, NSF programs fall within the top 15 percent of 600 government programs evaluated to date.

CROSSCUTTING ACTIVITIES

Beyond our budget priorities lie dozens of programs and initiatives that cut across NSF directorates and enrich the overall science and research enterprise. NSF sets priorities based on a continual dialogue and exchange of ideas with the research community, NSF management and staff and the National Science Board. Programs are initiated based on several criteria: intellectual merit, broader impacts of the research, balance across disciplines and synergy with research in other agencies. The Committee of Visitors process ensures a continuous evaluation of our merit review process and feedback on how NSF programs are performing. In fiscal year 2006, NSF will emphasize four crosscutting areas.

Crosscutting Areas of Emerging Opportunity.—Over several years, NSF has funded exceptionally promising interdisciplinary efforts aimed at advancing our knowledge, addressing national needs, and probing the grand challenges of science. The fiscal year 2006 request supports the following priority areas: $84 million for Biocomplexity in the Environment, $243 million for Nanoscale Science and Engineering, $89 million for the Mathematical Sciences Priority Area and $39 million for Human and Social Dynamics.

International Collaborations.—Science and engineering research are increasingly global endeavors. International partnerships are critical to the United States in maintaining a competitive edge, capitalizing on global opportunities, and addressing global problems. The Office of International Science and Engineering's recent move to the director's office, and the budget request reflects this important trend. The fis-

cal year 2006 budget provides $35 million for NSF's Office of International Science and Engineering.

The recent Indian Ocean Tsunami disaster represents the finest in international cooperation—and clearly demonstrates an international desire to develop scientific methods for natural disaster prediction and ways to reduce losses when such catastrophic events do inevitably occur. A network of more than 128 sensors—which NSF has a 20-year investment in—recorded shock waves from the recent earthquake as they traveled around the earth. This network is the primary international source of data for earthquake location and tsunami warning and its data forged the critical core of the early knowledge of this event. Within days of the disaster NSF research teams deployed to the region to gather critical data before it was lost to nature and reconstruction. Their work will help scientists and engineers better understand the warning signs of natural disasters, the design of safer coastal structures, the development of early warning and response systems, and effective steps for disaster recovery.

Interagency Initiatives.—NSF will continue to play a lead role in interagency collaborations to address national needs and take advantage of economic growth opportunities. In fiscal year 2006, NSF investments in the National Nanotechnology Initiative increase by $6 million over fiscal year 2005 levels to total $344 million. NSF participation in the Networking Information Technology Research and Development initiative will increase to $803 million—$8 million over the fiscal year 2005 level. The NSF contribution to the Climate Change Science Program decreases slightly to $197 million.

Homeland Security Activities.—The Fiscal Year 2006 Request includes a $2 million increase for government-wide efforts in homeland security research and development. This $344 million investment will strengthen NSF's commitment to cybersecurity by supporting innovations to secure today's computer and networking systems, embed cybersecurity into future systems and preparing tomorrow's workforce with state-of-the-art security skills.

CONCLUSION

Mr. Chairman, I've only touched upon the variety and richness of the NSF portfolio. NSF research and education efforts contribute greatly to the Nation's innovation economy and help keep America at the forefront of science and engineering. At the same time, NSF supported researchers produce leading edge discoveries that serve society and spark the public's curiosity and interest. Extraordinary discoveries coming from dozens of NSF programs and initiatives are enriching the entire science and engineering enterprise, and making education fun, exciting and achievement-oriented. In fact, just this month, two of the most widely-read and emailed stories from the national press were the discoveries of NSF-supported researchers.

In one, scientists using new bio-bar-code technology created a detection method for a protein implicated in Alzheimer's disease. It's the first test designed for use in living patients and holds promise for diagnosing Alzheimer's at an early stage. In the second development, scientists generated an entirely new classification system for the brains of birds based on recent studies showing that birds are much closer in cognitive ability to mammals than previously thought. The new scheme will affect thousands of scientists, and help merge research efforts on both birds and mammals. These two examples, fresh off the press, illustrate NSF's motto "Where Discoveries Begin."

Mr. Chairman and members of the committee, I hope that this brief overview conveys to you the extent of NSF's commitment to advancing science and technology in the national interest. I am very aware and appreciative of the committee's longstanding bipartisan support for NSF. I look forward to working with you in months ahead, and would be happy to respond to any questions that you have.

PREPARED STATEMENT OF DR. CHRISTINE BOESZ, INSPECTOR GENERAL, NATIONAL SCIENCE FOUNDATION

Chairman Bond, Senator Mikulski, and distinguished members of the subcommittee, I am Dr. Christine Boesz, Inspector General at the National Science Foundation (NSF). I once again appreciate the opportunity to present to you information as you consider NSF's fiscal year 2006 budget request. NSF's work over the past 55 years has had an extraordinary impact on scientific and engineering knowledge, laying the groundwork for technological advances that have shaped our society and fostered the progress needed to secure the Nation's future. Throughout, NSF has maintained a high level of innovation and dedication to American leadership in

the discovery and development of new technologies across the frontiers of science and engineering.

As you know, however, the nature of the scientific enterprise has changed over the past few decades. Consequently, the challenges facing NSF have changed. My office has and will continue to work closely with NSF management to identify and address issues that are important to the success of the National Science Board and NSF. I have now been the Inspector General of NSF for 5 years and am pleased to have the opportunity to work with both Dr. Washington and Dr. Bement, sharing in their vision of a truly successful organization. For the past 4 years, I have testified before this subcommittee on the issues that pose the greatest challenges for NSF management. This year, I will provide an update, from my perspective as Inspector General, on the progress being made at NSF to address the most critical of these challenges.

AWARD ADMINISTRATION

In a given year, NSF spends roughly 90 percent of its appropriated funds on awards for research and education activities. Awarding and managing these grants, cooperative agreements, and contracts is NSF's primary business activity. While NSF has a system for administering its peer review and award disbursement responsibilities, it still lacks a comprehensive, risk-based program for monitoring its grants and cooperative agreements once the money has been awarded.

In response to a reportable condition identified in the Independent Auditors Report for the past 4 years, the agency developed an Award Monitoring and Business Assistance Program Guide that includes post-award monitoring policies and procedures, a systematic risk assessment process for classifying high-risk grantees, and various grantee analysis techniques. NSF also developed an annual grantee-monitoring plan, conducted site visits on selected high-risk grantees, and provided grant-monitoring training for its reviewers. In addition, during the past year, NSF realigned staff and resources to better address this challenge and contracted with a consultant to independently assess its post-award monitoring program.

While these efforts represent positive steps toward an effective award-monitoring program, concerns remain about the limitations of the risk model in identifying all high-risk awards and the adequacy of site visit procedures and the necessary resources provided to the post-award monitoring program. In addition, a recent audit by my office further highlights the need for increased post-award monitoring. My auditors found that a significant number of both annual and final project reports required by the terms and conditions of NSF's grants and cooperative agreements were either submitted late or not at all. This was due in part because of a lack of emphasis placed on the importance of these reports, and because NSF staff do not have the time to adequately address this facet of award administration. In addition, my auditors found that contrary to its policy, NSF has continued to fund some principal investigators who have not yet submitted their final project reports.

But I am encouraged by the results of NSF's consultant's independent assessment of the post-award monitoring program, which contained concerns similar to ours. The consultant's report identifies many opportunities for improvement and recommendations for positive change. Implementing a plan to address these opportunities for improvement would address many of our concerns and would be a significant step for NSF towards successfully meeting this challenge.

MANAGEMENT OF LARGE INFRASTRUCTURE PROJECTS

Throughout my 5-year tenure as Inspector General of NSF, we have considered management of large facility and infrastructure projects to be one of NSF's top management challenges.[1] While this is certainly a subset of award administration, I continue to feel strongly that large facility management warrants independent attention. As you know, NSF has been increasing its investment in large infrastructure

[1] Memorandum from Christine C. Boesz, Inspector General, National Science Foundation, to Warren Washington, Chairman, National Science Board, and Arden Bement, Acting Director, National Science Foundation (Oct. 15, 2004); Memorandum from Christine C. Boesz, Inspector General, National Science Foundation, to Warren Washington, Chairman, National Science Board, and Rita R. Colwell, Director, National Science Foundation (Oct. 17, 2003); Memorandum from Christine C. Boesz, Inspector General, National Science Foundation, to Warren Washington, Chairman, National Science Board, and Rita R. Colwell, Director, National Science Foundation (Dec. 23, 2002); Memorandum from Christine C. Boesz, Inspector General, National Science Foundation, to Eamon M. Kelly, Chairman, National Science Board, and Rita R. Colwell, Director, National Science Foundation (Jan. 30, 2002); Letter from Christine C. Boesz, Inspector General, National Science Foundation, to Senator Fred Thompson, Chairman, Senate Committee on Governmental Affairs (Nov. 30, 2000).

projects such as accelerators, telescopes, research vessels and aircraft, supercomputers, digital libraries, and earthquake simulators. Many of these projects are large in scale, require complex instrumentation, and involve partnerships with other Federal agencies, international science organizations, and foreign governments. Some, such as the construction of the new South Pole Station, present additional challenges because they are located in harsh and remote environments.

As I have testified in the past, the management of these awards is inherently different from the bulk of awards that NSF makes. While oversight of the construction and operations of these large facility projects must always be sensitive to the scientific endeavor, it also requires a different set of management skills for the NSF staff involved. It requires expertise in the construction and oversight of large facilities; close attention to tracking costs and meeting deadlines; and effective coordination with scientists, engineers, project managers, and financial analysts. Although NSF does not directly operate these facilities, it is ultimately responsible and accountable for their success. Consequently, it is vital that NSF, through disciplined project management, exercise proper stewardship over the public funds invested in these large projects.

In fiscal years 2001 and 2002, my office issued two audit reports on large facilities with findings and recommendations aimed at improving NSF's management of these projects.[2] Primarily, our recommendations were aimed at (1) increasing NSF's level of oversight with particular attention to updating and developing policies and procedures to assist NSF managers in project administration, and (2) ensuring that accurate and complete information on the total costs of major research equipment and facilities is available to decision makers, including the National Science Board, which is responsible for not only approving the funding for these large projects, but also setting the relative priorities for their funding.

NSF continues to make gradual progress towards addressing the reports' recommendations. The most significant progress was the hiring of a new Deputy Director for Large Facility Projects. During the past year, NSF has made further progress by providing this Deputy Director with 1.5 FTE's, which allowed him to begin to develop the detailed guidance needed by program officers to adequately manage their large facility projects. Among numerous duties related to large facility project management, the Deputy Director chairs a facilities panel that has responsibility for approving management plans for projects, and he receives periodic reports on active projects.

However, the Large Facility Projects Office continues to face a number of obstacles to successfully implementing a viable large facility management and oversight program. To enable this Office to develop a more influential role, NSF's senior management must clearly recognize and champion the Large Facility Projects Office's oversight responsibility, and provide it with the independent authority and resources to handle it. These resources need to include funding for staff, contract support, travel, and other necessary resources. Without this management framework, the role of NSF's Large Facility Projects Office is likely to remain one that is primarily advisory and collaborative, rather than one that has a formal charge to substantively and positively influence project management decisions.

STRATEGIC MANAGEMENT OF HUMAN CAPITAL

While the previous two management challenges are of an ongoing and urgent nature, they may be symptomatic of a larger, more pressing need for improved strategic management of NSF's human capital. In order to fully address its award management challenges, NSF will need to devote more resources and attention to making business and process improvements, while at the same time, planning for its future workforce needs. Although advances in technology have enhanced the workforce's productivity, NSF's rapidly increasing workload has forced the agency to become increasingly dependent on temporary staff and contractors to handle the additional work. NSF's efforts in the past to justify an increase in staff have been impeded by the lack of a comprehensive workforce plan that identifies workforce gaps and outlines specific actions for addressing them. Without such a plan, NSF cannot determine whether it has the appropriate number of people or the types of competencies necessary to accomplish its strategic goals.

NSF has recognized the seriousness of this challenge and, as I testified last year, has now identified investment in human capital and business processes, along with

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[2] Office of Inspector General, National Science Foundation, Audit of the Financial Management of the Gemini Project, Report No. 01–2001 (Dec. 15, 2000); Office of Inspector General, National Science Foundation, Audit of Funding for Major Research Equipment and Facilities, Report No. 02–2007 (May 1, 2002).

technologies and tools, as objectives underlying its new Organizational Excellence strategic goal.[3] NSF also contracted in fiscal year 2002 for a comprehensive, $14.8 million, 3- to 4-year business analysis, which includes a component for a Human Capital Management Plan. Preliminary assessments provided by the contractor confirmed that NSF's workforce planning to date has been limited and identify specific opportunities for NSF to improve in this area. NSF's Human Capital Management Plan, which was delivered in December 2003, links Human Capital activities to the NSF business plan and to the Human Capital Assessment and Accountability Framework provided by the Office of Personnel Management. While the current plan provides a roadmap for identifying NSF's future workforce needs, the needs themselves are still in the process of being defined. I continue to believe NSF cannot afford to wait long to address its workforce issues. If not adequately resolved, these issues will undermine NSF's efforts to confront its other pressing management challenges and to achieve its strategic goal of Organizational Excellence.

NSF's reliance on "non-permanent" personnel is another area of concern. Forty-seven percent of NSF's 700 science and engineering staff are either visiting personnel, temporary employees, or intermittent employees. Visiting personnel make an important contribution to NSF's mission by enabling the agency to refresh and supplement the knowledge base of its permanent professional staff. But managers who serve at NSF on a temporary basis frequently lack institutional knowledge and are less likely or able to make long-term planning a priority. Moreover, there are substantial administrative costs that NSF incurs in recruiting, hiring, processing, and training personnel that rotate every 1 to 4 years. In fiscal year 2004, my office conducted an audit that identified the additional salary, fringe benefits, travel and other costs of visiting or temporary personnel, and found three areas where NSF could improve its administration of the programs.[4] In short, while visiting personnel are an important resource for NSF, the agency must continually balance the benefits of their services against the additional costs involved.

In conclusion I would like to comment briefly on my office's fiscal year 2006 budget request of $11.5 million. Although this request represents a $1.47 million (14.7 percent) increase over the Fiscal Year 2005 Current Plan, the increase is primarily to fund the annual audit of NSF's financial statements, which previously has been provided through NSF's appropriations. The contract for this audit will be re-competed in 2005, and we anticipate that its cost in fiscal year 2006 will increase dramatically, consuming 75 percent or more of our total requested increase.[5] The bulk of the remaining increase will be applied towards the expected pay increase for civilian personnel.

My office will continue to focus its audit attention on NSF's most pressing management challenges, some of which I have described for you today. In addition, we will also maintain a focus on specific issues that emerge concerning the management of NSF programs, procurement and acquisition, information technology, human capital, awardee financial accountability and compliance, and OMB Circular A–133 audits. We have recently made a strong commitment to improving the quality of audits conducted by our contract CPA firms, and the increase in time and effort required to meet the higher standards is significantly raising the costs of contracted audits.[6] In recent years, these audits have uncovered material issues concerning unallowable indirect costs, unfunded cost-sharing commitments, and records maintained by large school systems that were so inadequate they could not be audited. It is likely that the continuing increase in costs may result in a reduction in the number of contracted audits in fiscal year 2006. We will also have to more gradually phase in our assessments of NSF actions resulting from the agency's multiyear business analysis contract and workforce plan, which are scheduled for completion in fiscal year 2005. Finally, while we will be able to initiate an audit on international collaborations, which are an integral part of NSF's portfolio, with particular attention to the accountability and audit requirements of international partners, major efforts in this area may also have to be phased in.

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[3] National Science Foundation, Strategic Plan Fiscal Year 2003-Fiscal Year 2008 (Sept. 30, 2003) <http://www.nsf.gov/od/gpra/Strategic__Plan/fiscal year 2003–2008.pdf>.

[4] Office of Inspector General, National Science Foundation, Audit of Costs Associated with Visiting Personnel, Report No. 04–2006 (July 23, 2004). Opportunities for improvement cited in the report include consulting income documentation, IPA pay computations, and VSEE cost of living adjustments.

[5] Our survey of the current audit market shows that audit costs in general are on the rise because of Sarbanes-Oxley and other government requirements. While the audit cost $800,700 in fiscal year 2004 and is projected to be $855,800 in fiscal year 2005, the audit under a new contract is expected to exceed $1.0 million in fiscal year 2006.

[6] Most contract CPA audits currently range from $67,000 to $160,000.

Mr. Chairman, this concludes my written statement. I would be happy to answer any additional questions you or other members of the subcommittee may have, or to elaborate on any of the issues that I have addressed today.

NATIONAL SCIENCE BOARD

STATEMENT OF DR. WARREN M. WASHINGTON, CHAIRMAN

Senator BOND. Dr. Washington.

Dr. WASHINGTON. Mr. Chairman Bond, Senator Mikulski, and Senator Stevens, I appreciate the opportunity to testify before you. My testimony today is in my capacity as Chairman of the National Science Board.

On behalf of the Board and the widespread community involved in various aspects of education, as well as research, I want to thank the Senate for the long-term commitment to the investments in science, engineering, mathematics, technology, and education.

The Board greatly appreciates the Senate's very prompt action in confirming eight new members of the Board and the NSF Director.

The Congress established the National Science Board in 1950 and gave it dual responsibilities: First, oversight of activities and establishing policies for the National Science Foundation and second, serving as an independent national science body to render advice to the President and Congress on policy issues related to science and engineering research and education.

During our recent Board Retreat, which was only a week or so ago, the Board re-affirmed their strong commitment to fulfilling our obligations. The Board members, including the NSF Director, discussed the important role of the Board in establishing a new vision and setting priorities for the Foundation.

The Board has reviewed and approved the NSF fiscal year 2006 budget request that was submitted to OMB in September 2004, and we generally support the President's budget request.

We are certain that members of this subcommittee fully understand the unique and long-term value of NSF programs to ensure the future economic health of our Nation, to maintain U.S. preeminence in discovery and innovation, and to provide valuable contributions to homeland security efforts.

The Board fully supports the fiscal year 2006 budget focus on the four funding priorities that address current national challenges, as well as making NSF's core portfolio of research investment even stronger.

Should additional funds beyond the administration's request be made available to NSF, the Board has these following recommendations: to more strongly support the investment in science and engineering education, to address the backlog of Board-approved major research equipment and facilities construction projects, and to address the additional financial burden to the Foundation related to the transfer of financial responsibility for icebreaker ships from the Coast Guard to the NSF.

I would like to briefly highlight some of the Board's accomplishments last year. Regarding the large research facilities, we are in the process of developing and implementing the setting of priorities for the MREFC projects, and we have approved a draft of "Setting Priorities for Large Research Facility Projects Supported by the National Science Foundation" report. And we are now seeking

input from the larger community about that report, and we expect full implementation of the revised process by the fall.

The Board has examined the policies and the positions that came out of the NAPA report—those have to do with the Sunshine Act, the use of IPA's and other employees who rotate in and out of the Foundation, the appointment process of the NSF Inspector General, and the role of the Board in oversight and setting policies for NSF.

During this year, the Board will begin a revision of our strategic plan with a focus on vision and long-term goals for NSF, while working with the NSF management to set clear, near-term priorities for the Foundation that are linked to budget realities.

At the request of Congress, we will also be carrying out an examination of the NSF Merit Review System and report our initial findings before the end of this fiscal year.

PREPARED STATEMENT

The Board is going to be examining long-lived data collections, how to support transformative research more effectively, and how to ensure an adequate and diverse S&E work force for the future.

We will also be examining our investments in NSF centers versus PI-type grants.

I thank you very much, and I will be happy to answer any questions.

Senator BOND. Thank you very much, Dr. Washington.

[The statement follows:]

PREPARED STATEMENT OF DR. WARREN M. WASHINGTON

Chairman Bond, Senator Mikulski, and members of the committee, I appreciate the opportunity to testify before you. I am Warren Washington, Senior Scientist and Section Head of the Climate Change Research Section at the National Center for Atmospheric Research. My testimony today is in my capacity as the Chairman of the National Science Board (the Board, NSB).

On behalf of the Board and the widespread and diverse research and education communities that we all serve, I thank the Senate for its long-term commitment to a broad portfolio of investments in science, engineering, mathematics, and technology research and education.

The Congress established the National Science Board in 1950 and gave it dual responsibilities:

—oversee the activities of, and establish the policies for, the National Science Foundation (the Foundation, NSF); and

—serve as an independent national science policy body to render advice to the President and the Congress on policy issues related to science and engineering research and education.

The Board greatly appreciates the Senate's very prompt action in confirming eight new NSB Members and the NSF Director before our December 2004 meeting. This Senate action allowed the Board to move forward with our new Members able to participate fully in addressing the Board's demanding responsibilities.

I would like to provide some general comments regarding the NSF fiscal year 2006 budget request, then update you on National Science Board activities over the last year and some of our priorities for the coming year.

FISCAL YEAR 2006 NSF BUDGET REQUEST

The National Science Board has reviewed and approved NSF's fiscal year 2006 budget request that was submitted to the Office of Management and Budget (OMB) in September 2004, and we generally support the President's budget request before you today. Given the overall cut to non-defense domestic discretionary spending, the Board respects and appreciates that the President's budget request recognizes the importance of returning NSF to positive growth. We are cognizant of the current Federal fiscal constraints that our Nation faces and that there are many worthy

competing interests for a limited resource. However, we are also certain that the members of this Senate Appropriations Subcommittee fully understand the unique and long-term value of NSF programs in science and engineering research and education to ensuring the future economic health of our Nation, maintaining U.S. preeminence in discovery and innovation, and providing valuable contributions to homeland security efforts.

The Board fully supports the fiscal year 2006 NSF budget focus on the four funding priorities that address current national challenges as well as strengthening the core portfolio's of NSF"s research investment. We also recognize that a budget request of $5.605 billion, representing a 2.4 percent increase over NSF"s fiscal year 2005 budget, is a significant investment in NSF programs in a time of national fiscal austerity. Nevertheless, it is incumbent on the Board to note that this request remains below the level of the 2004 NSF operating budget.

Should this subcommittee determine that additional funds, beyond the administration's request, can be made available to NSF in fiscal year 2006, the National Science Board would recommend support for a strong and growing role for the NSF in the Nation's investment in science and engineering (S&E) education, addressing the backlog of Board approved and prioritized Major Research Equipment and Facilities Construction (MREFC) projects, and addressing the financial burden to the Foundation related to the transfer of financial responsibility for icebreaker ships from the Coast Guard to the NSF.

Adequate preparation of future participants in the U.S. workforce, at all levels of education, will require increasing mathematics and science understanding and skills if the United States is to sustain global preeminence in S&T. The Board has underscored its concern about the poor performance of U.S. citizens in essential knowledge and skill areas in science, technology, engineering, and mathematics (STEM) fields, in comparison with other high technology countries. It is impossible to conclude that growth in our national capabilities can occur without continual enhancement of the skills of our workforce. We have relied too heavily on attracting international students and professionals to meet our workforce needs, and, as a result, we need to do a better job of preparing U.S. students for joining the S&E workforce. Other nations are competing with the United States for the best international students and most accomplished S&E professionals. We must recognize the critical challenge our Nation now faces in sustaining a U.S. science and technologies (S&T) workforce that will be competitive over the long term in an increasingly global and competitive S&T environment.

The Board fully supports the proposed fiscal year 2006 funding for MREFC projects, and appreciates the significant increase in funding for this budget category. Members of the Senate Appropriations Subcommittee are aware of the exciting opportunities at the frontiers of knowledge that we are unable to pursue without the cutting edge facilities that are funded under this account. While funding for ongoing MREFC projects is the highest priority for the Board, the lack of implementing any new projects in fiscal year 2006 will increase the concern of the science community that the United States is losing its ability to sustain cutting edge S&E research. Should additional funding for MREFC projects be available, the Board recommends, in priority order, support for Ocean Observatories and the Alaska Regional Research Vessel.

The third area for which the Board would recommend any additional NSF funding be allocated is appropriate support for the costs that NSF will incur with the transfer of financial responsibility for icebreaking activities previously supported by U.S. Coast Guard. The administration's fiscal year 2006 NSF budget request allocated $48 million. The Board is very concerned that the true costs to NSF for these new responsibilities will be greatly more that $48 million and will, therefore, drain resources from NSF research and related activities. We understand that a new NSF-Coast Guard Joint Working Group is discussing various options for dealing with this issue. In addition, we also understand that the National Academies Polar Research Board is studying this issue and expects to provide an interim report in September 2005. When these two groups have completed their discussions and assessments, we urge Congress to factor their conclusions into any final budget decisions and provide adequate funding to fully support this new NSF responsibility.

Again, the NSB supports the integrated portfolio of investments in S&E research and education represented in the NSF fiscal year 2006 budget proposal. It thoughtfully blends support for the core disciplines with encouragement for interdisciplinary initiatives, brings together people from diverse and complementary backgrounds, provides infrastructure for research and STEM education, and strengthens the NSF"s management of the enterprise.

Further, in this time of National emergency, this budget for NSF continues to foster S&T that enhances our homeland security. NSF activities in this area include

Critical Infrastructure Protection, Research to Combat Bioterrorism, Cybercorps/ Scholarships for Service, Counterterrorism, and Physical/Information Technology Security. Of course, by enabling future discovery and innovation, NSF supports our Nation's long-term prosperity and economy security.

OVERVIEW OF NSB ACTIVITIES DURING THE LAST YEAR

During the last calendar year, even while going through a continuing evolution in terms of its operation, the Board has accomplished a great deal in terms of our mission to provide oversight and policy direction to the Foundation.

I would like to briefly highlight some of these accomplishments, but will not attempt to discuss them all here.

In terms of providing oversight for the Foundation, the Board has:

—reviewed and endorsed the Office of Inspector General Semi-annual Reports to Congress, and approved NSF management responses;
—approved the NSF fiscal year 2006 budget request for transmittal to OMB;
—reviewed the Foundation's report on its merit review system;
—provided review and decisions on nine major awards or proposal funding requests;
—developed and implemented a Board process for re-prioritization of all Board approved, but not yet funded, MREFC projects; and
—provisionally approved the report "Setting Priorities for Large Research Facility Projects Supported by the National Science Foundation" (NSB/CPP–04–20).

The Board and Foundation are implementing the principles of the revised process described in this provisionally approved document for the fiscal year 2006 budget. At the same time, the Board Office has implemented an extensive outreach effort to invite comments from nearly 400 individuals and organizations that would be expected to have particular interest in large facilities. We expect final revisions based on this additional review and input, Board approval of all revised procedures and policies, and full implementation of the revised process over the next few months.

With respect to providing policy direction to the Foundation, the Board has:

—approved a report on "Broadening Participation in Science and Engineering Faculty" (NSB 04–41) that addresses the need to increase the diversity of this component of the S&E workforce to more nearly reflect the diversity of the student body it serves, and
—approved elimination of agency requirements for cost sharing, beginning this year (2005), while retaining the 1 percent statutory cost-sharing requirement.

In terms of advice to the President and the Congress, the Board has:

—published and distributed widely "Science and Engineering Indicators 2004", the 16th volume of this statutory, biennial series and initiated the "Science and Engineering Indicator 2006" report;
—published a policy statement accompanying Indicators 2004, "An Emerging and Critical Problem of the Science and Engineering Labor Force" (NSB 04–07), which draws attention to the disturbing long-term trends in U.S. education and the globalization of S&T that, if ignored, may result in a loss of U.S. leadership in innovation and high technology;
—approved the draft report on "Long Lived Data Collections: Enabling Research and Education in the 21st Century" (NSB/CPP–04–21);
—reported to the Congress on Delegation of Authority in accordance with Section 14 of the NSF Act of 2002;
—responded to four specific IPA-related questions that NSB's Executive Officer received from House Appropriations Subcommittee for VA, HUD, and Independent Agencies;
—published and disseminated "Fulfilling the Promise: A Report to Congress on the Budgetary and Programmatic Expansion of the National Science Foundation" (NSB–03–151);
—provided testimony to congressional hearings;
—interacted with Office of Science and Technology Policy (OSTP) and OMB on NSF and S&E issues;
—provided briefings and presentations to the Congress and other policy organizations concerning the Board's reports and statements; and
—responded to specific questions and inquiries from Senators and Representatives.

In an effort to facilitate more openness of Board meetings in accord with the Sunshine Act, we expanded our practices for:

—providing public notice of all our meetings in press releases, the Federal Register, and the NSB Web site;
—treating teleconferences of committees as open meetings;

—providing much more information to the public in a more timely manner regarding meeting discussions and decisions; and
—encouraging public comment during the development of Board publications.

Also, this past year the Board:
—examined our policies and positions relevant to the recommendations of the National Academy of Public Administration report concerning the Board's implementation of the Sunshine Act, the use of Intergovernmental Personnel Act (IPA) employees and other rotators at NSF, the oversight of the NSF Inspector General, and the role of the National Science Board in oversight and setting policies for NSF;
—began implementing recommendations of the Office of Inspector General to continue enhancing our procedures and policies related to compliance with the Sunshine Act; and
—significantly increased and improved our direct outreach and communication with OMB, OSTP, Congress, other Federal agencies, various interest groups and the outside S&E research and education community.

To that end, the Board Office is contracting to develop monitoring and evaluation tools, to expand outreach, and measure the impacts of NSB statements, resolutions and reports; and to redesign the NSB Web site for greater accessibility and utility to the public.

One thematic area of significant accomplishment was transformative or "high risk" research where the Board organized a Workshop on "Identifying, Reviewing, and Funding Transformative Research" and established within the Committee on Programs and Plans a Task Force on Transformative Research. Another thematic area of accomplishment this year was long-lived data collections where the NSB established within the Committee on Programs and Plans a Task Force on Long-Lived Data Collections; and prepared a draft report, "Long-Lived Date Collections: Enabling Research and Education in the 21st Century" (NSB/CPP–04–21).

The year 2004 also saw the Board's examination of NSF issues related to broadening participation in S&E; as well as efforts toward obtaining industry perspectives on workforce issues. The Board has also continued its recognition of outstanding science, engineering and science education accomplishments through the Vannevar Bush Award, Alan T. Waterman Award, and Public Service Awards.

FISCAL YEAR 2006 NSB BUDGET

The administration's Fiscal Year 2006 Budget Request of $4.0 million for the NSB will be adequate to support Board operations and activities during fiscal year 2006. The request seeks resources to carry out the Board's statutory authority and to strengthen its oversight responsibilities for the Foundation. We expect that the Foundation will continue to provide accounting, logistical and other necessary resources in support of the NSB and its missions, including expert senior S&E staff serving as a cadre of executive secretaries to Board committees and task forces.

At the urging of Congress, in fiscal year 2003 the Board began examining options for augmenting its professional staffing levels. At its May 2003 meeting, the Board decided to begin a process to assess the feasibility of recruiting for positions that would broaden its policy support, provide additional legal advice, and enhance the Board's capabilities in advanced information technology. The Board Office has continued to implement the staff enhancement plan, adding four positions this fiscal year for support staff, including information technology staff, science assistants, national awards assistant, and filling the vacancy for an editor/writer. The Board Office will be recruiting two senior professionals to provide policy and legal support to the Board this year. The Board is very pleased with the progress of the staff enhancement process.

The NSB Office staff provides the independent resources and capabilities for coordinating and implementing S&E policy analyses and development. It also provides operational support essential for the Board to fulfill its mission. By statute, the Board is authorized five professional positions and other clerical staff as necessary. In consultation with the Congress, the Board has defined these professional positions as NSB senior S&E policy staff, and the clerical and technical positions as NSB staff that support Board operations and related activities. The full impact of increasing the number of professional positions closer to the statutory level is expected to occur in fiscal year 2005, emphasizing a broadening of professional skills to support the Board.

In addition to the NSB Office's essential and independent resources and capabilities, external advisory and other services are especially critical to support production of NSB reports, and supplement the NSB staff's general research and administration services to the Board. These external services provide the Board and its Of-

fice with the flexibility to respond independently, accurately and quickly to requests from Congress and the President, and to address issues raised by the Board itself.

In fiscal year 2006, the Board will expand its ongoing examinations of its role and responsibilities regarding the NSF's MREFC programs as it finalizes the development and implementation of a new protocol for the process by which major research equipment and facilities proposals are developed, prioritized, and funded; NSF policies for Long-lived Data Collections; NSF policies regarding the identification, development and funding of transformative "high risk" research; and policies to ensure an adequate and diverse S&E workforce for the future.

The Board will continue to review and approve NSF's actions for creating major NSF programs and funding large projects. Special attention will be paid to impacts of budget constraints on the S&T workforce, broadening participation in higher education, national S&T infrastructure, and the size and duration of NSF grants.

Effective communications and interactions with our constituencies contribute to the Board's work of identifying priority S&T policy issues, and developing policy advice and recommendations to the President and Congress. To this end, the Board will increase communication and outreach with the university, industry and the broader S&E research and education community, Congress, Federal S&T agencies, and the public. These activities will support U.S. global leadership in discovery and innovation based on a continually expanding and evolving S&T enterprise in this country, and will insure a principal role for NSF programs in providing a critical foundation for S&E research and education.

With our new Board Members, new openness, and new modes of operations, the Board has much to do in 2005. However the most daunting challenge we face is making the tough choices and prioritizing NSF programs and projects in the face of constrained Federal budgets and a growing competition for those funds.

CLOSING REMARKS

This is a difficult time for Federal budgets for S&E research and education and the institutions and individuals in the nonprofit and public sectors that rely on Federal support. For over 50 years the Federal Government has sustained a continual, visionary investment in the U.S. research and education enterprise in the expectation that such investment would redound to the benefit of all Americans. That Federal effort has expanded the horizon of scientific discovery and engineering achievements far and wide, leading to the realization of enormous benefits to our Nation and, indeed, all of humanity.

In recognition of the Federal fiscal realities our Nation faces, the National Science Board pledges that we will be a force for causing the NSF to set priorities, to make hard programmatic budget decisions and, as a result, to obtain the most benefits from the funds provided. However, even in a time of budget constraints, as a Nation we cannot ignore our growing dependence as a society on innovation for economic prosperity and the ever-improving quality of life Americans have come to expect. The Federal compact in research and education with the nonprofit sectors is an essential pillar of our Nation's global dominance in S&T.

We know what works—we have a very long history of success to draw on. We know the expanding frontiers of knowledge offer enormous opportunities for research and innovation. We also know that the education of all our citizens in the fundamentals of math, science and engineering must be addressed if the United States is to remain eminent in S&T when we enter the 22nd century. As other nations ramp up their investment in the infrastructure for S&E research and innovation, we cannot be complacent. The Federal investment in the Nation's S&T is a necessity for the Nation's future prosperity and security. The United States must sustain its advantages through continued wise, adequate Federal support for our S&E enterprise.

Senator BOND. I am now going to turn to Senator Mikulski for her opening statement and questions. Then we will turn to Senator Stevens, our President pro tem, for his comments and questions. Senator Mikulski.

STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator MIKULSKI. Thank you very much. Good morning to everybody.

Senator Bond and Senator Stevens, we know that we have a full appropriations hearing with Secretary Rice. So I am going to ask unanimous consent that my opening statement go into the record.

Senator BOND. Without objection.

Senator MIKULSKI. I want to make two points about it before I go into questions.

First of all, to our panel here today and all in the scientific community, I think we noted the passing of Dr. Bromley, who was a Science Advisor to President Bush's father, that this subcommittee worked so closely with. He was a great person to work with and I would just like to acknowledge his passing and hope we would all hold him in our heart and just to also acknowledge when we can work together on a bipartisan basis and nonpartisan—see, I think science should be nonpartisan. You know, science belongs to America, not to a particular party. So we just want to note that.

Coming back, though, as we look at the budget, I must say I am deeply disturbed about it. Senator Bond has said that 2 percent is really 1 percent. Let us say it is 2 percent for the sake of conversation. That would mean our mutual goal of doubling the National Science Foundation budget, which is in law, signed by President Bush, would take, at this current funding, 36 years. Thirty-six years. That would take us to 2040.

Now, I think that America cannot wait. If we are going to have an innovation economy, which you support, we need to be able to have this, I believe, on a more robust path, focusing on certainly the four goals that you have outlined. They are exactly, I think, the national goals.

Really, it is two broad-based functions. No. 1, research. Unlike NIH and some of the others and our great Federal labs, academia will tell us, as you know, that it is the National Science Foundation that funds the basic research that leads to the basic breakthroughs that lead to the new ideas that lead to the new technologies. So, that has to be our mission.

And then the other is education. Where is the next generation of scientists and technology? We do not have a work force shortage. We do not have a talent shortage. We have to make sure we do not have an opportunity shortage when we look at a variety of levels of education. I know Senator Bond will be talking very much about the education budget.

PREPARED STATEMENT

Before I go to my questions, I just wanted to make those points. Should we yield to Senator Stevens and then go to your questions and come back?

[The statement follows:]

PREPARED STATEMENT OF SENATOR BARBARA A. MIKULSKI

Welcome Dr. Marburger, Dr. Bement and Dr. Washington. I want to thank Senator Bond for holding this hearing. I am glad we are moving forward with our work.

The proposed budget for NSF is just 2.4 percent above last year for a total of $5,605,000,000. This barely keeps pace with inflation. Most disturbing is the cut to education programs. This budget actually cuts education programs by 12 percent and research is increased by almost 3 percent which barely keeps pace with inflation. Yet, salaries and expenses go up by 20.5 percent, and major equipment goes up by 44 percent. I do not doubt the value, need, or resources devoted to major

equipment but when every other part of the NSF budget is starved for resources, a huge increase like that stands out.

Senator Bond and I are committed to doubling the NSF budget over 5 years. We have increased NSF's budget by an average of 10 percent over the President's budget for the last several years. This administration has broken its promise to NSF. In 2002, the President signed the NSF Authorization into law. It authorized a doubling of the NSF budget between 2002 and 2007. In 2006, NSF is authorized to be funded at $8,500,000,000. Yet the President's 2006 budget funds NSF at $5,605,000,000—34 percent below where it should be.

Not only does this budget fail to double the NSF budget in 5 years, it actually cuts education programs by 12 percent. How can we raise test scores if we are cutting the very programs that are designed to raise test scores? A recent international study found that U.S. fourth grade students in mathematics came in 12th place—just behind Hungary. We are falling behind in innovation, job creation and education and this budget does nothing to address any of these issues.

Teacher training programs are cut by 35 percent. K–12 education programs are cut by 23 percent. How can we train the next generation of teachers, and how can we prepare the 21st century workforce, when we are cutting the very programs that address this problem?

Every major report on long term U.S. economic competitiveness has cited the need for a large increase in research—basic research into the physical sciences (physics, chemistry), and strategic research (nano, bio and info tech). It used to be we won the Nobel Prizes and other countries won market share. That was bad enough. Now, we are even falling behind in our Nobel Prizes. After peaking in the 1990's, the American share of Nobel Prizes is now falling for the first time in over 40 years. America's share of patents is also falling while patents granted to researchers in other countries is increasing. India, China, Japan, Korea—these are the countries we are competing against. Innovation is the key to economic growth and the Federal Government must take the lead but this budget fails to make the investment we need to innovate.

Community Colleges should be at the forefront of training a high tech workforce. Yet, this budget cuts funding for community colleges. We should be increasing funding for community colleges, not decreasing it.

The Tech Talent program which was started by this subcommittee and was designed to produce more math, science and engineering students, was cut. Again, we see a pattern of cutting education programs that address our most fundamental competitiveness and workforce development needs.

If we are going to increase minority participation in the sciences, then we have to start with our Historically Black Colleges and Universities. In my own State of Maryland, I am proud to represent Morgan State, Bowie State and the University of Maryland, Eastern Shore.

Fortunately, graduate stipends, which I lead the fight to raise, remain at the $30,000 level.

I am also pleased to see a proposal for an expanded Tsunami warning system. We know that NOAA and the U.S. Geological Survey are the lead agencies but we look forward to hearing about NSF's role and other agencies that are participating in this program.

Finally, I believe it is time to renew our commitment to oceans research. The U.S. Commission on Ocean Policy, chaired by Admiral Watkins, has given us an outstanding set of recommendations to pursue.

Unfortunately, with a flat budget, cuts to education, workforce development and no real increase in research, the promise of innovation will be delayed. Other countries will continue to accelerate their commitment to research and development. The jobs of tomorrow depend upon the research of today. Unless we increase our commitment to workforce training, education and research, we will fall behind the rest of the world.

Senator BOND. That is a very generous idea. Senator Stevens.

Senator STEVENS. Thank you very much.

Senator MIKULSKI. But that is the direction I am going to be going in.

BARROW ARCTIC RESEARCH CENTER

Senator STEVENS. I do want to move on to the other committee and get prepared for that too.

I only have one question. I am particularly talking to Dr. Bement. Alaska is the one place in the United States that really has shown the early effects of global climate change. We have plants growing further north. We have timber growing further north. The permafrost is thinner. We have the offshore ice that is thinner, if not gone. We have changes in some of the ocean mammals. We have considerable inundation of coastal villages, if not destruction of many.

In 2004, I asked Congress to provide $5.8 million to NSF to reconstruct the Barrow Arctic Research Center. You have not spent a dime of it. Why?

Dr. BEMENT. Well, I had the impression that was in NOAA's budget. We have been working with Admiral Lautenbacher——

Senator STEVENS. That was Science Foundation money that I earmarked as chairman of the committee, $5.8 million. Not one word from you since then.

I do not want to embarrass you. I would ask you to give us a report because I think that is really a terrible situation when this area is the worst hit in the United States, and we cannot restore that center. The industry wants it. The State wants it. The science community wants it. It is the central location to try and study what is going on up there. You used to have a center there and the Navy was part of it then. I think you took it over after the Navy and then closed it down.

Dr. BEMENT. Well, Senator, let me report to you that we are working on the Barrow Center. We have invested in the Barrow Center. We have a plan. We have implemented every element of the plan to date. I have met with NOAA executives, Admiral Lautenbacher. We are trying to develop a joint plan to fully fit out that center. That plan is currently in progress and we will have a report to you as quickly as we can put it together.

Senator STEVENS. Good. I thank you very much.

Thank you very much, Senators.

Senator BOND. Thank you, Senator Stevens.

NATIONAL SCIENCE BOARD LONG-TERM VISION

Let me ask two quick questions and I am going to turn it back to Senator Mikulski for her questions. First, Dr. Washington, as I stated in my opening remarks, I think the Science Board has to develop a long-term vision, and I think the Board is perfectly suited to do that. I agree with Dr. Marburger's statement that tight budgets have the virtue of focusing on priorities. So does a hanging in a fortnight.

But I hope we are not in that bad a condition, but developing a clear strategy is critical so that we are focused on limited funds.

May I have your commitment that you will have the Board immediately begin working on this matter? And how soon can the Board tackle it and when can you get it done?

Dr. WASHINGTON. At the retreat that we had just a couple weeks ago, we did extensively talk about updating and coming up with a new strategic plan. You have my assurance that I will make this a high priority for next year.

Senator BOND. How about a date? When will we have it?

Dr. WASHINGTON. Hopefully we can have it by December. Now, you know I have 24 members and——

Senator BOND. Well, tell the 24 members that Senator Mikulski and I——

Senator MIKULSKI. And 48 opinions.

Senator BOND. You are scientists, not economists. We do not have one on the one hand and on the other hand.

Dr. WASHINGTON. Yes.

Senator BOND. December, okay.

MANAGEMENT AND OVERSIGHT OF LARGE FACILITIES

Next, Dr. Bement and then Dr. Washington. The IG's statement for the record on the slow progress in addressing management and oversight of large research facility projects was disappointing. I think we understand you have a very good Deputy Director in Mark Coles. But I get the sense that he is not being utilized adequately as recommended.

And I have three problems we would like you to fix immediately: No. 1, changing the roles and responsibilities of the LFP office so that they are authoritative and independent as originally intended, rather than advisory and collaborative.

No. 2, the LFP needs resources. I understand you have begun addressing this and I applaud you but the current 1.5 FTE's are not going to cut the mustard given the complexity of the projects. I would suggest that even more resources be made available, maybe 5.

No. 3, we ask that you ensure your systems can act quickly, track the cost of these projects so there is accountability. That is one thing that drives us nuts.

So I would like your commitment today that you will take action on these recommendations and I would ask Dr. Washington as part of the Board's oversight role to hold the Science Foundation accountable for implementing it. Dr. Bement.

Dr. BEMENT. Senator, we take guidance from the Inspector General quite seriously. On the other hand, there were some things I believe the Inspector General did not take into account.

First of all, I hold myself accountable for our large facilities management and I take that responsibility very seriously. I rely on Mark Coles to be my early warning system to advise me on things going right and things going wrong. He has my complete confidence and has full responsibility for oversight.

But the Inspector General did not take into account that he has access to 127 people in the budget and finance office to do full cost accounting, which is currently being implemented.

Now, in addition to that, we have under contract—so he has access to contract personnel—to automate that full cost accounting system and make it an e-system and that will be implemented yet this year.

On top of that, we do have plans to augment his capability by additional staff, not only full-time equivalent Federal personnel, but also additional contract personnel.

Now, his role is business oversight. In addition to that, we have scientific oversight by all of our program officers assigned to each

of these projects, and he has the responsibility to coordinate their activities and provide oversight as well.

So in my evaluation, in all due respect to the Inspector General, I think that we have made great progress. We have more progress yet to make, but it is not a process that is broken.

Senator BOND. I commended you on the steps that you have taken, but having access to 127 people is not the same as having the few that work for him, and we would like to see that business aspect totally handled. We want to see the science coordinated. We want to make sure these projects and these large facilities do function properly.

Dr. Washington, a comment on that?

Dr. WASHINGTON. Well, I concur with what Arden said.

Now, the thing is the Board has been trying to step up to the oversight responsibilities with respect to the facilities issues, and I think that the report that is going to come out this fall, hopefully, will have all of the steps, both internally to NSF, and as the Board steps in how we approve, as well as monitor, these projects as they go through their life cycle.

Senator BOND. We look forward to continuing that discussion and having some response from the IG as well.

Senator Mikulski.

Senator MIKULSKI. Thank you, Mr. Chairman. I think our colleagues should know that because of the Condoleezza Rice hearing, this will be compressed.

My question goes to the impact of the R&D funding here. When we look at the $5 billion in the NSF budget for basic research, we are concerned that when we look at it, the industry share has fallen down. They are under so much pressure to meet bottom lines so the private sector that used to do breakthroughs, the demise of flagship institutions or the shrinkage like a Bell Lab with so many breakthroughs, so many patents, so many things that then were important to our society and led the way.

Now, what we are concerned about is either the flat or the declining Federal investment in R&D while other nations like China and India, the new turbo powers in the global economy, are increasing their investment. Can you share with us what you think the consequences are going to be to our country? And if we stay at this point, while we are looking, as Senator Bond has pressed for, a strategic plan—but it is a strategic plan for not only NSF but for our country. Could you give us your thoughts on that?

We know that your testimony has been vetted and all of those other kinds of things, but it would seem to me that if we had our druthers, we would have the NSF budget at at least 7.5 to 8 this year.

Dr. MARBURGER. With your permission, Senator, I would like to take a crack at that too.

It is true that China, India, and other countries are increasing their investment. They are trying to look like the United States and they are trying to build a base of research and technically trained people to improve their economies, and we look forward to having new colleagues to help the entire world economy.

But the United States maintains an extraordinary lead over these countries. We have huge investments. We are spending three

times in Federal support of research and development that Japan, the next largest investor in these areas, does. During the past 5 years, there has been an enormous increase in the R&D capacity of the United States. This budget is tight, but it also maintains that strength and it does move ahead in selected areas such as nanotechnology and information technology and in other areas that are important to our leadership role.

So, yes, we do have to be careful and make sure that we establish priorities that maintain our leadership. I believe that we are far in the lead now and will continue to be so for the foreseeable future. But this is a time when we have to make priorities and hard decisions, and this budget reflects that.

Senator MIKULSKI. Dr. Washington, I know you are an old hand at these types of questions and have devoted a lot of thought. As we look at the allocation, presuming Senator Bond and I will have the National Science Foundation account—you know, we have been bonded for a long time.

And we do not want to have a barb in the appropriations process.

FUNDING FOR BASIC RESEARCH

Senator BOND. Not bad for 10 o'clock.

Senator MIKULSKI. Not bad.

How would you allocate this? Would you then say we should stay the course in funding basic research? You know my own orientation to the multidisciplinary approaches on breakthroughs like nano. How would you do this? But I am concerned that if you stay flat-funded, you are really in decline.

Dr. WASHINGTON. Yes. In fact, if I can just add to that. We are seeing an enormous increase in proposals being sent to the Foundation, and with limited resources, we are going to be seeing the acceptance rate probably dropping, and that means lost opportunities.

Senator MIKULSKI. Can you give us a quantifiable statement on that? How many do you get and how many can you fund that you would consider meritorious?

Dr. WASHINGTON. Yes. I think it was last year that there was roughly $1 billion of excellent proposals that were not able to be funded, and I expect it will be a larger number in this coming year. I think that we are up to roughly 43,000 proposals being sent to the Foundation, and with limited resources we just are not going to be able to fund all of those.

If I could just add one more thing to your earlier comment. I went to the White House at the signing of the authorization bill, and I had great hopes that the NSF budget would be increasing enormously, maybe by a factor of 2 over maybe 7 or 8 years. That hope is not there now. In other words, I think it is going to be a lost opportunity for our Nation to not have a greatly increased budget for NSF.

Senator MIKULSKI. Dr. Bement, did you want to say anything?

Dr. BEMENT. Well, I think my response would be that more and more economists are determining that what is driving our economy right now is not just savings, but investment in research and development and education. That equation has been picked up by almost every nation in the world, and so we are locked in competition for

future economic growth and also in job creation. That is especially important to the United States because we want to capture the high end of new discovery and innovation. Even today, there has been a great ramping up of the number of patents that are citing recent discoveries through basic research.

So it is an area where we have to pay attention. We have to take a longer view. And I am somewhat concerned that if you look at the mix of what is being funded in the private sector and the public sector, that too much of it is short-term. It is not just short-term in the private sector, but more of it in the public sector is becoming short-term.

K–12 MATH AND SCIENCE EDUCATION

Senator MIKULSKI. Well, I am concerned not only about the R&D issues but about education.

There are going to be wonderful Marylanders associated with Hopkins that are going to receive White House medals on March 14, Dr. Giacconi, the founding father of the Space Telescope Institute and the Hubble initiative, and Dr. Saul Snyder, the head of neuroscience at Hopkins. They are both in their seventies, and they both have been professional advisors to me, as well as personal friends. If they were sitting here, in our many conversations in their homes and in the cafes of Baltimore, they would say we need not only money for research, but we are in our seventies. We need to be able to fund those people in their twenties, those young, upstart people that are bursting to go, and then also these children, all this talent that is out there bursting at the seams with people who want to get into the honors programs in middle school, as well as in high school.

Now, I am concerned about this 12 percent cut in education. Would you tell us then how do you think you are going to address it and the consequences of this 12 percent? Because there are the Giacconis. There are the Snyders. One is someone who emigrated to this country. Again, I do not think we have a talent shortage. I never want us to have an opportunity shortage.

Senator BOND. Senator Mikulski, if I may add on that. That was going to be my next question. The math and science partnership program continues to fund only the ongoing grants NSF has already awarded. The program is supposed to be placed in the Department of Education. We never thought it would. It has not gotten proposed funding. Furthermore, the current budget proposes to reduce the number of K through 12 teachers involved with math and science education by 17,000, with teacher and material development both being cut by over 30 percent.

I think we are going in the wrong direction. Dr. Marburger, does the administration not think we have a problem with K through 12 math and science education? Is it not important? What is the rationale behind cutting the resources that the NSF needs to make sure that we have math and science education at the K through 12 level effectively addressed? I will send a strong letter to follow.

Dr. MARBURGER. Senator, the administration agrees that it is very important to have strength in teaching math and science in the lower grades. It is not obvious that putting all the money into some of these programs is the only way to go. We support strength-

ening education through a variety of means, through programs not only in NSF or not only in the Department of Education, but in investments in educational programs, educationally oriented programs in NASA, in the Department of Energy, and other areas. Even the research grants that NSF gives to the universities turn out to have an impact at education at all levels.

We believe that a sort of across-the-board consciousness raising about the importance of K through 12 education is having an impact on those areas and the budget recommendations in this proposal address a sort of across-the-board philosophy that tries to put the money in the agencies that are appropriate to this task.

Dr. BEMENT. Senator Mikulski, last year when I appeared before you, I was relatively new in the Foundation.

BROADENING PARTICPATION

Senator MIKULSKI. Yes. You came to us from NIST, another special agency.

Dr. BEMENT. And you asked me about ATE and ISE and I was not very sharp on that, but I learned very quickly. I felt that we did, as you pointed out, need to give higher priority to broadening participation. We just have to address our total population to bring people in the STEM work force.

So taking all those special programs that address broadening participation, and if we take Math and Science Partnership aside, I took the enacted budget and actually added $10 million to those special programs. That adds up to about $400 million all together.

But that is not the end of the story because we have now engaged the directorates. We are taking a much more integrated approach because the science directorates also have a responsibility for education. If you take in their contributions to broadening participation, actually the total investment in the Foundation amounts to about $597 million.

Now, with regard to K to 12 education, even though the results may appear to be disappointing from the budgetary point of view, there is a success story there because the school districts that we have funded have discovered what works. And we have been working with the Department of Education to take the lessons learned, the best practices of "what works" and work with them in making "what works" work throughout all the other school districts in the country. That is being done through an interdepartment tiger team. We are going to continue to work very closely with them. I have requested a meeting with Secretary Spellings, and we will have a lot to talk about on that score.

K–12 EDUCATION

Senator MIKULSKI. I just want to be clear about this. The math and science initiatives in curriculum, teacher development, and so on were to be research-driven. And when we work on No Child Left Behind, we want research-based solutions, not just whatever gimmicks that are being sold, et cetera.

Now, are you saying that now the results are coming in and now you see this then disseminating to the 50 States, to the 180-some school districts——

Dr. BEMENT. No, Senator.

Senator MIKULSKI [continuing]. In terms of research knowledge, symposiums, this type of thing?

Dr. BEMENT. The administration fully supports our research activities in this area, and we intend to continue our mission in doing research in this area.

Senator MIKULSKI. You said you have got lessons learned, best practices. You want to meet with her.

Dr. BEMENT. Yes.

Senator MIKULSKI. What is the point of the meeting?

Dr. BEMENT. The point of that is that in our pilot programs with the various districts that we support, we are learning through our research what can be effective in improving science and mathematics education. We will never have the resources or personnel to propagate that throughout the entire Nation. We have to rely on the Department of Education to carry out the propagation role.

Senator MIKULSKI. Well, that is the point, to take the lessons learned, the best practices, go to I think a very dynamic Secretary of Education and experienced and seasoned in the field to then propagate that.

Dr. BEMENT. We have that partnership.

Senator MIKULSKI. Well, actually I will look forward to hearing about that because we do not want research mortuaries where we just collect the data and it just gets banked somewhere, you know, the way they freeze things for the future.

There are so many interesting things to be covered.

PLANT GENOME

Senator BOND. Senator Mikulski, we have all noted the research mortuaries.

We have run out of time.

Dr. Mary Clutter is here. Dr. Clutter, will you stand up please? Thank you very much. I was going to ask you to give a report. Unfortunately, we have run out of time, but I want everybody here to know how important the work is that is going on in the plant genome area. We have 800 million children worldwide that are hungry or malnourished. We know that nutrition and food production are critical to the health and economic opportunity for all countries, and there are a lot of new industrial energy and pharmaceutical applications to new food technologies that can serve to ensure our Nation's producers and the world's population and we can benefit from this with aggressive work. I would ask for the record you update us on the genome project and your efforts to create collaborative partnerships between U.S. and developing country research institutions.

I would note for you, without asking for any endorsement from the NSF, the fact that Senator Mikulski and I have introduced a measure recommended by Dr. Danforth's blue ribbon committee to establish a food and agricultural research arm to do the basic research. We want to bring with that additional funding because we know how strapped your Foundation funding is. But the best minds in the scientific community have steered us in this direction to say that we need basic research to utilize the tremendous potential in this area. Senator Mikulski and I and a number of others will be reintroducing that. We would welcome your comments and sugges-

tions on it and would look forward to having a report that we will try to publicize. I hope everybody who is here will read it. Certainly Senator Mikulski and I will.

Senator Mikulski, any closing thoughts?

Senator MIKULSKI. No. I think we just want to thank you for what you do. As you can see, we certainly have the will to be supportive and we need to find a national wallet. So thank you.

Senator BOND. Thanks so much to our witnesses, to all those who attended. We apologize. Due to other commitments, we have to bring this hearing to a close, but we certainly hope to have the opportunity to continue to work with you. Stay tuned and we will find out whether we do.

SUBCOMMITTEE RECESS

The hearing is recessed.

[Whereupon, at 10:03 a.m., Thursday, February 17, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

THURSDAY, MAY 12, 2005

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2 p.m., in room SD–192, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Hutchison, Cochran, and Mikulski.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

STATEMENT OF MICHAEL D. GRIFFIN, ADMINISTRATOR

OPENING STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. The subcommittee will come to order.

This hearing of the Senate Commerce, Justice, Science and Related Agencies Subcommittee is the first meeting of the restructured committee. I want to welcome the new NASA Administrator, Dr. Michael Griffin, who is joining us to discuss the President's fiscal year 2006 budget request for the National Aeronautics and Space Administration (NASA).

Dr. Griffin, in assuming your new post as the NASA Administrator, I can only imagine how busy the past few weeks have been for you. Now that you have had some time to reacquaint yourself with NASA's activities, we look forward to discussing your thoughts about how NASA is doing and hearing your insights as to what they could be doing better.

I also anticipate that we will have an ongoing and open dialogue about NASA's progress with return to flight and achieving the President's Vision for Space Exploration. I am very interested in discussing how we can preserve their expertise within the activities and institutions that will be necessary to take this ambitious journey.

More than 1 year ago, the President presented a Vision for Space Exploration that calls for a return to the Moon and eventually a manned mission to another planet. I am excited myself by the opportunities that lie ahead with the exploration vision at NASA.

However, there are fiscal realities that, like it or not, may affect the vision. That is what we deal with on this subcommittee, and I believe it is one of the difficulties that you will face as the NASA Administrator: having to balance NASA's limited resources with its programs and requirements.

I believe that we all appreciate the inherent risk involved with many of the activities NASA undertakes. We also appreciate that with risk comes the potential for failure. Inevitably, failures increase the overall cost of the activity, and one of the problems that I anticipate along the path to the Moon is the potential for failures that could pose a significant challenge to the forward momentum of the program and vision. Of course, we all hope there will not be any failures, but I believe we have to build in the possibility.

We have already experienced such a challenge with NASA's return-to-flight requirements. Specifically, we have seen a strain on science missions and aeronautics as NASA has redirected funds to pay for return-to-flight cost overruns. These fund shifts have caused programs and facility projects to be deferred, created uncertainty regarding the fate of the Hubble telescope and resulted in aeronautic spending being flat.

Dr. Griffin, I believe you have the knowledge, the background, and the ability to guide NASA. But I also believe that you must begin your journey on a firm foundation. Getting back to the Moon will take more than just plans for a rocket. It will also take a sound financial structure and capable management in order to balance all of the important activities that NASA undertakes to make this exploration vision a reality.

I believe there are several looming issues that must be addressed to maintain the forward momentum of NASA's exploration goals. The first, as I alluded to before, is the Shuttle fleet and how that impacts any future crew exploration vehicle—CEV. NASA has been working diligently to complete the necessary changes to the Shuttle that will provide additional safety for our astronauts and the vehicle itself. However, the Shuttle is targeted to be decommissioned by 2010. The next U.S. manned space vehicle, the crew exploration vehicle, is not currently scheduled for a manned flight until 2014. I am concerned by such a gap in U.S. manned space flight and, more importantly, I am concerned that the time schedule for the current 25 or more Shuttle flights prior to the 2010 retirement is quite optimistic. Any deviation in these schedules as they relate to funding could cause this gap to widen even further than is currently anticipated.

I understand that you have your own ideas, Dr. Griffin, as to how the gap between the Shuttle retirement and the CEV could be closed. I am interested in hearing how you believe this is a possibility during a tight funding environment.

The second challenge, the completion of the International Space Station, is directly linked to the first. The construction of the station is dependent on the Shuttle for critical supplies and parts that cannot be delivered by any other vehicle. Our international partners have done an admirable job filling in while the Shuttle is undergoing repair, but there is an expectation that the Shuttle will return as it is essential to complete the Space Station.

The United States has a commitment to our international partners to complete the station. I believe we must maintain that commitment, and I am interested in hearing your thoughts about NASA's plans for completing the International Space Station and, further, how that will impact our ability to work cooperatively with other countries in the future on the vision we have.

Finally, I believe NASA faces a significant challenge in building the technical workforce necessary to carry us into the future. NASA is one of the most publicly recognized agencies within the Federal Government. We all know something about NASA, whether it is the stunning pictures of the universe from the Hubble space telescope photos from Mars, or even the astronauts living on the Space Station. Such high visibility and name recognition can be powerful tools in inspiring and recruiting future scientists and engineers. But I believe the success of NASA programs in science and exploration that students see today is the inspiration necessary to attract the young people of this Nation to these careers in the future.

I know you realize that the missions of tomorrow will not be possible if there are no scientists and engineers being developed today. This is a serious issue that must be addressed in order to ensure that future exploration in space can occur.

I want to thank you again for being here today. It is my hope that this will be the beginning, Dr. Griffin, of a productive relationship between NASA and this newly constituted subcommittee.

Senator Mikulski.

STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator MIKULSKI. Thank you very much, Mr. Chairman. And today is really the first hearing of the new Commerce, Justice, Science Subcommittee, and I want to say how much I look forward to working with you, Chairman Shelby. Though we are new together in our assignment on this subcommittee, Senator Shelby and I have a very long and collegial history together. We served on the same committee in the House of Representatives, on Energy and Commerce. We were on the Appropriations Committee since our arrival in the Senate, and we have worked closely with Senator Shelby when he has had other committee responsibilities. And I must say, Senator Shelby, I have always found you to be a good friend and a very collegial colleague, and I look forward to that relationship.

Also, in your remarks and the priorities that you have laid out in your opening statement, I want to assure all those are also my priorities and that we can work on a bipartisan basis in the interest of the United States of America and look forward with you since we both have a parallel will to finding the wallet.

I am excited about this new subcommittee, though I was initially disappointed at the dissolution of the VA/HUD Subcommittee. But what we see here, I think you and I have a new opportunity for a true science subcommittee. I recall that our colleague and former astronaut John Glenn said that we should have done this a long time ago, that too much of our science was stovepiped into too many different subcommittees. But here now on this subcommittee we have something quite unique. We are bringing together NASA, the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation, the National Institutes of Standards, the Patent Office, and the President's Science Advisor. So we would hope that this would be the beginning of kind of a leveraged science policy.

I am excited about this because I believe that science is the key to innovation, and innovation is the key to our future. If we are

going to have a safer country, a stronger economy, we need to be smarter, and that involves really leveraging our research and technology development and a world-class workforce. Our economy and our national security will depend upon it.

I also think that we, because of this subcommittee, both through NASA and the National Oceanic and Atmospheric Administration, could present an incredible opportunity in terms of far-reaching research and far-reaching exploration of the stars, but in a way that we would focus efforts on Earth science that would save lives, save livelihoods, and advance our technological competitive edge.

So today I am looking forward to hearing from Dr. Griffin, our new head at the helm of NASA. I personally want to thank President Bush for appointing an actual rocket scientist to head NASA. But I would also like to take this opportunity to thank someone in the audience, Mr. Chairman—Mr. Fred Gregory, who served as the Acting Director of NASA and provided a very steady hand. And, sir, we would like to thank you and salute you for the job you did during that time, but also in your career at NASA. And I think it points out the wonderful civil service we have at NASA, these wonderful men and women who give their lives to scientific exploration, who work in the Government sphere to advance our national priorities. So we want to say thank you to you personally and to you representing really what an outstanding civil service we have. So thanks again.

We are looking forward, though, to hearing from Mr. Griffin. As the chairman said, we have got to talk about the Shuttle. We have got to make sure the Shuttle flies when it should fly so that it can go to space and return our astronauts safely. At the same time, I too am concerned about the fact that we could be without a crew exploration vehicle for 4 years. We know that the Shuttle is aging technology. We know that it will get us through a difficult time now. But I believe that we owe it to the country, we owe it to our astronauts, that we really look at what is a wide, prudent way to accelerate this crew transportation system.

The United States of America should always have its own access to space. The Space Station, too, we need to be able to finish that, keep our commitment to our international partners, and keep it as a premier research facility.

And, of course, then there is Hubble. Everyone knows my position on Hubble, and I believe it has been the greatest telescope invention since Galileo himself stood on that rooftop in Florence. And as Dr. Griffin knows, I have stood on those rooftops in Baltimore with the Space Telescope Institute and our beloved Hubble.

But Hubble has resulted in enormous scientific breakthroughs. We look forward to the next generation, but we think if we can repair Hubble, give it new batteries and new optics, it will take us far into the future at many different levels.

But, of course, then we look at the NASA budget. I am concerned about the Shuttle cost and our ability to pay for it, the Space Station and our ability to maintain it, that aging infrastructure that Senator Shelby has talked about, and our new vision, the President's vision to go into space. But along the way, I really hope that we do not neglect the other dimension of the NASA responsibility, and that is aeronautics.

Twenty years ago, the United States had over 90 percent of the market share for commercial airlines. Today we have 50 percent of that market, and the National Institute of Aeronautics told us we must really continue to focus on our aeronautics for our national security and our economic security. And, Mr. Chairman, I look forward to working with you, as always, on a balanced program: a reliable space transportation system, always supporting the daring and the outcome of human exploration, but also a special emphasis on science both in terms of understanding our own planet, others out there, and also new breakthroughs in aeronautics that will help our country be safer and stronger.

So, Mr. Chairman, I look forward to working with you, listening to Mr. Griffin, and again, Mr. Gregory, thank you very much.

Senator SHELBY. Senator Hutchison.

STATEMENT OF SENATOR KAY BAILEY HUTCHISON

Senator HUTCHISON. Thank you, Mr. Chairman. And welcome again, Mr. Administrator. I certainly look forward to having you at my subcommittee next week as well to talk about Space Shuttle and beyond.

The proposed budget for NASA is certainly one that reflects difficult choices, but given the overall reductions in discretionary spending, I think it is generous and fair. Undoubtedly, many areas of traditional NASA activity feel the pressure from our new priority: preparing humans for missions back to the Moon and on to Mars. This is a new direction. It is a bold direction and one that I totally support. NASA should be bold, and having the long-term vision is essential for NASA.

Where I have questions and concerns about NASA, they revolve around longer-term impacts to our current investments in human space flight capabilities. As you know, Mr. Administrator, I am concerned about the possibility of a gap between the planned retirement of the Shuttle and the availability of the replacement crew return vehicle. I think a 5-year gap is unacceptable. I think it is not only a risk to the important scientific research that we are doing, but it is a security risk to our country. And I am pleased that you have shared the same concerns, and I know both the chairman and the ranking member here have also expressed those concerns.

I also am concerned about the investment that our Nation and our international partners have made in the International Space Station and wanting to assure that with the budget priorities that we have, we keep the commitments to the International Space Station and finishing the job of building it out.

In addition, of course, I believe that the science is going to be the most important thing that we do with humans in space, and, therefore, we need to have the Space Station totally ready with its build-out and with the scientific emphasis that is so important for the missions to succeed.

So I am looking forward to working with you. I think what you have done in delaying the return to flight is exactly the right thing. Your concern for safety and your jumping right in and going to the bottom, not just the top, to determine that we were ready to go was exactly right. And as my friend and colleague Senator Mikulski

said, we want it to go badly but we want it to go at the right time more. So thank you very much for being here, and I look forward to being able to hear you and then ask questions.

Thank you, Mr. Chairman.

Senator SHELBY. Dr. Griffin, your written statement will be made part of the record in its entirety. Proceed as you wish.

SUMMARY STATEMENT OF ADMINISTRATOR MICHAEL D. GRIFFIN

Mr. GRIFFIN. Thank you, Senators. It is also my pleasure to be here. I thank you for the invitation to appear before your subcommittee and begin the process of communication with you, which I pledge will be thorough and ongoing throughout my tenure.

In the spirit of Senator Mikulski's remarks, I would like also to take a moment and thank Colonel Gregory for his service between Administrator O'Keefe's departure and my arrival. Fred is a personal friend of more than 15 years' standing, a person who has risked his life on behalf of this country in Vietnam, in military test flying, in weather flying, weather research flying, and on the Space Shuttle. His services in linking the tenures of Administrator O'Keefe and myself have been invaluable, and he continues to be invaluable today, and I want to take this opportunity to thank him publicly. So thank you, Fred.

Chairman Shelby, ranking member Mikulski, Senator Hutchison, members of the subcommittee, thank you for this opportunity to discuss the President's fiscal year 2006 budget request for NASA and our strategic direction in carrying out the Nation's civil aeronautics research, space and Earth science, and space exploration activities.

A month ago today, I appeared before the Senate Commerce, Science, and Transportation Committee as the President's nominee to be the NASA Administrator. I want to thank the Senate for your prompt consent to my nomination. It has been a busy month, and the Agency is well underway toward implementing the Vision for Space Exploration.

I have said before and will say again that, as a Nation, we can clearly afford vigorous, well-executed programs in both robotic and human space exploration, Earth science, and aeronautics research. In presenting the vision last year, the President put forth a commitment that our Nation will undertake a journey of space exploration over the next several decades. I am personally committed to carrying out that vision.

Every journey begins with a single step. The first step in that journey is to return—not rush—the Space Shuttle to flight. The next launch window for the first Space Shuttle mission following the *Columbia* tragedy begins in mid-July. Space Shuttle *Discovery* mission STS–114 will be commanded by Eileen Collins. I might add "Colonel" Eileen Collins. Our top priority in my tenure will be to make each successive flight safer for the crew than we believed the last one to have been.

The second step in the vision is to complete the construction of the International Space Station and to retire the Space Shuttle by 2010. After two successful return-to-flight Shuttle test flights, the Agency will complete its assessment of the relative risks of a Space

Shuttle mission to service the Hubble space telescope to increase its capabilities and to extend its operational life.

The next step in the Vision for Space Exploration is to develop the crew exploration vehicle that will be capable of ferrying the next generation of astronauts to the Space Station, the Moon, and Mars. As you may know, I recently kicked off an exploration systems architecture study team to examine ways to accelerate the development of the crew exploration vehicle in order to minimize any gaps in the United States' capability for human space flight. As I think all of you know, I completely share your concern about any gap between the retirement of the Shuttle and initiation of flights of the follow-on vehicle. I hope to share with you by mid-July NASA's plan for how we can accelerate development of the CEV, as well as that of the rocket needed to launch it. I also hope to share with you NASA's plan for the space architecture that will allow us to return to the Moon and eventually head onwards to Mars.

NASA's fiscal year 2006 budget also funds a variety of satellite missions and scientific research in Earth science as well as other planets in our solar system. It funds development of even more advanced space telescopes to follow the Hubble, such as the James Webb space telescope.

NASA's fiscal year 2006 budget for aeronautics research is focused on achieving results, such as reducing noise emissions, improving aircraft safety and security, and improving the capacity and efficiency of the National Airspace System. NASA is working closely with the FAA, the Defense Department, the Department of Homeland Security, and others to achieve those results.

While today's hearing concerns the upcoming fiscal year, I also want to update the subcommittee concerning the difficult choices that must be made in executing NASA's fiscal year 2005 budget and my guiding philosophy in dealing with those challenges.

First, I want to thank this subcommittee and the Congress for providing NASA with the additional flexibility to address our challenges in this year's appropriation bill. It is my pledge to keep you fully informed as to how this Agency spends its allocated resources in accordance with the flexibility you have given us.

In our fiscal year 2005 operating plan, which has been provided to this subcommittee, NASA is fully funding a $762 million cost increase for Space Shuttle Return to Flight consistent with the recommendations of the Columbia Accident Investigation Board, over $400 million in congressionally directed items, $291 million for Hubble servicing options, and over $500 million in programmatic cost increases for various programs, including the Mars Reconnaissance Orbiter, set to launch in August, and the New Horizons mission to Pluto set for launch in early January—and numerous others, I might add, not just those two.

To find offsets needed to fund these items, we have made some difficult choices. NASA cannot afford everything that is on its plate today. We must set clear priorities to remain within the budget NASA has been allocated.

In order to preserve the option of servicing the Hubble space telescope and to provide for a safe deorbit, NASA must defer work on even more advanced astronomy missions planned after the Webb

telescope. These projects, which are phenomenal technical achievements, will be done, but at a slower pace because we cannot afford to do everything at once.

We will also look at deferring some Mars missions in their formative stages, currently in their formative stages, and restructuring Project Prometheus space nuclear power efforts. We must focus on nuclear technology efforts on our highest priorities for near-term needs, and we will examine alternative nuclear systems, including surface nuclear power, nuclear thermal propulsion, and nuclear electric propulsion systems to support human and robotic missions.

Turning to NASA's fiscal year 2006 budget request, I think it is useful to emphasize that the proposal is balanced, allowing us to address national priorities in aeronautics and Earth science, while maintaining our focus on the vision for space exploration introduced in NASA's fiscal year 2005 budget.

Budget highlights include a $5.5 billion request for the Science Mission Directorate. This will support 55 missions in orbit, 26 in development—including the Lunar Reconnaissance Orbiter which will map the Moon's surface in great detail—and 34 projects in the design phase. NASA has a robust science agenda.

Our $3.2 billion request for the Exploration Systems Mission Directorate includes $753 million, a down payment toward the crew exploration vehicle, so that we will have the capability to launch humans into space as soon as possible after the Shuttle's retirement.

One of the ways we may accelerate development of the CEV is by down-selecting to a single contractor in early 2006 as opposed to the previously planned 2008. Likewise, we may also need to defer work in certain exploration-related technologies that are not needed in the early years of implementing the vision for exploration.

The funding request of $6.8 billion for the Space Operations Mission Directorate includes $4.5 billion for the Space Shuttle and $1.9 billion for the International Space Station. NASA is currently examining alternative configurations for the Space Station that meet the needs of the United States and our international partners. We hope to provide the subcommittee our results from this study of the station configuration this summer.

NASA's request for the Aeronautics Research Mission Directorate is $852 million. NASA's technical expertise and its facilities for aeronautics research must continue to become more focused and results-oriented. NASA must set realistic priorities for its aeronautics program within its limited resources. As we move forward, a broader national dialogue on aeronautics R&D goals may be appropriate as we enter the second century of aviation. These discussions must include a range of stakeholders and customers, including the Congress, Department of Defense, commercial civil aviation, and, of course, NASA.

NASA's education initiatives need to establish clear goals, metrics, and monitoring techniques in the coming months to ensure that the funds the Congress provides will achieve the greatest benefit.

I also intend to review how NASA can best harness the unique capabilities of the workforce at its field centers to achieve our Na-

tion's objectives in aeronautics research, space science, and exploration.

To conclude, let me stress my firm belief that as a Nation, we can clearly afford vigorous and well-executed programs in both robotic and human space exploration, Earth science, and aeronautics research.

PREPARED STATEMENT

I plan to work closely with your subcommittee to help achieve these ends.

Thank you once again for the opportunity to appear before you this morning.

[The statement follows:]

PREPARED STATEMENT OF MICHAEL D. GRIFFIN

Mr. Chairman and Members of the Subcommittee, thank you for this opportunity to appear today to discuss NASA's plans for the future as represented in the President's fiscal year 2006 budget request for NASA.

On January 14, 2004, President George W. Bush announced the Vision for Space Exploration. The President's directive gave NASA clear objectives as well as a new and historic focus. The fundamental goal of this directive for the Nation's space exploration program is ". . . to advance U.S. scientific, security, and economic interests through a robust space exploration program." In issuing this directive, the President committed the Nation to a journey of exploring the solar system and beyond, returning humans to the Moon, and sending robots and ultimately humans to Mars and other destinations. He challenged us to establish new and innovative programs to enhance our understanding of the planets, to ask new questions, and to answer questions as old as humankind. NASA embraced this directive and began a long-term transformation to enable us to achieve this goal.

In June 2004, the President's Commission on Implementation of the United States Space Exploration Policy, led by E.C. "Pete" Aldridge, Jr. (the Aldridge Commission), reported its findings and recommendations to the President. The Aldridge Commission emphasized the crucial role that technological innovation, national and international partnerships, and organizational transformation must play if we are to implement the President's vision for an affordable and sustainable space exploration program. NASA is committed to making the necessary transformation to achieve the Vision for Space Exploration.

On December 21, 2004, the President signed a new national policy directive that establishes guidelines and implementation actions for United States space transportation programs and activities to ensure the Nation's continued ability to access and use space for national and homeland security, and civil, scientific, and commercial purposes. NASA will play a significant role in implementing this directive, fostering and enabling the development of space transportation capabilities for human space exploration beyond low-Earth orbit with the Crew Exploration Vehicle (CEV), consistent with the goals of the Vision for Space Exploration.

The President demonstrated his commitment to the Vision for Space Exploration by making it a priority in his fiscal year 2005 budget request, and Congress responded positively by providing funding for NASA at the level requested by the President. The President has reaffirmed his commitment to the Vision by again making it a priority in his fiscal year 2006 budget request in a very challenging budget environment. The $16.46 billion requested for NASA reflects an increase of 2.4 percent over fiscal year 2005.

While today's hearing concerns the President's fiscal year 2006 budget request for NASA, I must also use this opportunity to update the Committee regarding the difficult choices that need to be made in executing NASA's fiscal year 2005 budget, and my guiding philosophy in dealing with these challenges.

First, and most importantly, I want to thank this Committee and the Congress for providing NASA additional flexibility in the fiscal year 2005 appropriations bill to address the challenges facing the Agency. It is my pledge to keep you fully informed of how this Agency spends the funds you have provided us. A detailed fiscal year 2005 Operating Plan update was recently provided to all of the Committees in Congress which oversee NASA.

With this fiscal year 2005 Operating Plan update, NASA is fully funding—within our fiscal year 2005 budget—the $762 million increase for returning the Space Shut-

tle safely to flight, consistent with the recommendations from the Columbia Accident Investigation Board (CAIB), over $400 million in Congressionally-directed items, $291 million for Hubble servicing, and over $500 million in necessary programmatic cost increases, notably to cover cost growth in several space science missions, including the Mars Reconnaissance Orbiter, scheduled to be launched this August, and the New Horizons mission to Pluto set to launch in early January 2006.

Identifying offsets needed to fund these items has created some difficult choices for the Agency. Given a choice, I generally favor eliminating lower-priority programs rather than reducing all programs in the face of budget difficulties, because this allows for the more efficient execution of the programs which remain. Thus, we must set clear priorities to remain within the budget which has been allocated.

Allow me to be as clear as possible on what the impact of these costs means to other programs. The Agency has adopted a "go-as-you-can-pay" approach toward space exploration. Several NASA missions and activities will need to be deferred or accomplished in other ways in order to ensure adequate funding for the priorities of the President and the Congress in fiscal year 2005. NASA cannot do everything that we, and our many stakeholders, would like to accomplish. Several missions will have to be delayed, deferred, or cancelled in order to pay for the missions where the priorities were set by the President and Congress. We have tried to be sensitive to the priorities of the affected research communities, and have listened carefully to their input. For example, we seek to balance among planetary science, Earth science, solar physics, and astronomy within the overall science program by revisiting our Mars exploration program strategy and mission sequence. Deferring the Mars Science Lab to 2011 is an option in this reassessment.

In order to service the Hubble Space Telescope and provide for a safe deorbit, NASA will need to defer work on even more advanced space telescopes like the Space Interferometry Mission (SIM) and Terrestrial Planet Finder (TPF). The extent of this deferral and an appropriate follow-on strategy for the Origins program is currently under review. Space nuclear power and propulsion are absolutely essential for future space exploration. However, we must focus our nuclear technology efforts on our highest priorities for near-term needs. NASA will examine alternative nuclear systems—including surface nuclear power, nuclear thermal, and nuclear electric systems—to support human and robotic missions. As a result, we are able to restructure Prometheus Nuclear Systems and Technology, which, in the near-term, helps pay for fiscal year 2005 unrequested Congressional items and Agency priorities.

As we complete future planning activities later this summer, we will need to further examine resources to accelerate the CEV. Likewise, NASA's research and technology efforts to support human space exploration missions farther out into the future will need to be curtailed, to focus on near-term needs of developing the CEV to be available as soon as possible.

As someone who has managed many space and advanced technology programs, I believe that NASA's one-of-a-kind spacecraft missions must combine technical requirements and budget authority under clear lines of management authority and accountability. When I arrived at NASA a month ago, I found some programs (namely, the Hubble servicing mission, Robotic Lunar Exploration, and ISS crew/cargo) with overlapping responsibilities among Mission Directorates. We are simplifying the management chain-of-command and, in the May update to the fiscal year 2005 Operating Plan, are transferring management responsibilities to the appropriate line managers.

Likewise, when I arrived at NASA, the role of the CEV in supporting the International Space Station (ISS) was not clear. While the recently established Exploration Systems Architecture Study team will carefully define the CEV's requirements, I have specifically directed that the CEV will visit the ISS. As I testified during my confirmation hearing, I believe that the CEV development must be accelerated in order to minimize the gap between the Space Shuttle retirement and the first operational flight of the CEV. To that end, NASA's Exploration Systems Mission Directorate (ESMD) will be responsible for developing and acquiring crew and cargo capabilities to support the ISS, and funds have been transferred to that Directorate in the May update to NASA's fiscal year 2005 Operating Plan.

NASA PRIORITIES

Over the past year, NASA has made great strides in implementing the Vision for Space Exploration and meeting other national priorities:

—*Shuttle Return to Flight.*—We are making final preparations for the Space Shuttle return-to-flight planned for mid-July.

—*International Space Station*.—The ISS began its fifth year of continuous human presence on-orbit.

—*Exploring our Solar System and the Universe*.—The Mars rovers, Spirit and Opportunity, have exceeded all expectations and made unprecedented discoveries; the Cassini/Huygens mission is providing stunning views of Saturn and Titan; the Genesis mission, despite its hard landing, has returned primordial samples from space; new missions have been launched to Mercury and to comets; and amazing discoveries continue with Hubble, Chandra, and Spitzer.

—*Laying the Groundwork for the Future*.—We awarded initial contracts in preparation for a major milestone in 2008 with the mapping of the Moon in unprecedented detail by the Lunar Reconnaissance Orbiter (LRO).

—*Engaging the Public*.—We engaged the public and enhanced national excitement for space exploration thanks to the President's announcement of the Vision for Space Exploration. Indeed, in a Gallup poll, seven out of ten Americans supported the objectives of this Vision.

—*Aeronautics*.—We are continuing to execute a portfolio of focused, results-oriented technology demonstrations of next-generation aircraft along with aviation safety, security, and airspace systems. NASA, with its industry partners, recently demonstrated the feasibility of significantly reducing the sonic boom from supersonic aircraft, and, last November, NASA's hypersonic X–43A demonstrated that an air-breathing engine can fly at nearly 10 times the speed of sound.

—*Earth Science*.—We have completed deployment of the Earth Observing System and are supporting investments in the Global Change Science and Technology Program and the next generation Earth observing satellites for numerous applications, including improved weather forecasts, earthquake prediction, resource management, and other hazard warnings.

—*Education*.—We are continuing to educate the public and inspire the next generation of explorers.

AFFORDABILITY AND SUSTAINABILITY

In his February 2nd State of the Union Address, the President underscored the need to restrain spending in order to sustain our economic prosperity. As part of this restraint, it is important that total discretionary and non-security spending be held to levels proposed in the fiscal year 2006 Budget. The budget savings and reforms in the Budget are important components of achieving the President's goal of cutting the budget deficit in half by 2009, and we urge the Congress to support these reforms. The fiscal year 2006 Budget includes more than 150 reductions, reforms, and terminations in non-defense discretionary programs, of which 3 affect NASA programs. The Agency wants to work with the Congress to achieve these savings.

To achieve the Vision for Space Exploration, NASA is proceeding, as directed by the President, to plan and implement a sustainable and affordable, integrated robotic and human exploration program, structured with measurable milestones, and executed on the basis of available resources, accumulated experience, and technology readiness. Last year, we provided a long-range roadmap through 2020 to outline this program:

—The Space Shuttle will be retired by 2010. Prior to its retirement, it will be utilized primarily for the assembly of the ISS. Our top priority will be to make each flight safer than the last one.

—The crew transportation capability provided by the Shuttle will be replaced by the new CEV and its associated launch system. The CEV will be developed in the latter part of this decade and deployed operationally as soon as possible after Shuttle retirement. The CEV will conduct missions in Earth orbit, including missions to the ISS, but its primary mission will be to support exploration of the Moon and other destinations.

—A balanced program of robotic missions will continue to increase our understanding of our home planet and will continue the exploration of the solar system, traveling to the Moon and Mars in anticipation of later human visits, as well as to other destinations such as Mercury, Saturn, Pluto, asteroids, and comets. Observatories will be deployed to search for Earth-like planets and habitable environments around distant stars, and to explore the universe to understand its origin, structure, evolution, and destiny. Funding for these areas would significantly increase over the coming years, with Science investments growing from 33 percent to 38 percent of the Agency's total budget.

—Human explorers will return to the Moon, possibly as early as 2015—with the CEV as the first core element of a new exploration architecture. Major develop-

ment of the other elements in the exploration architecture will commence later this decade and will accelerate upon the retirement of the Space Shuttle. These exploration elements will include launch vehicles, in-space transfer systems, lunar landers, and surface habitation systems. Critical research and technology investment decisions will be guided by the development requirements of these elements.

These human and robotic explorers will enable our exploration and scientific plans. A recent report released on February 3, 2005, by the National Research Council, entitled Science in NASA's Vision for Space Exploration, states, "Exploration done properly is a form of science. Both robotic spacecraft and human spaceflight should be used to fulfill scientific roles in NASA's mission to explore." To that end, NASA has initiated an Exploration Systems Architecture Study, to be completed in mid-July, which will provide the analytical support for a number of key near-term decisions for NASA, the White House, and Congress. We will keep Congressional Committees informed as this study effort progresses.

This study effort has four products:

—Complete assessment of the top-level CEV requirements and plans to enable the CEV to provide crew transport to the ISS and to accelerate the development of the CEV and crew launch system to reduce the gap between Shuttle retirement and initial CEV flights to the ISS.

—Definition of top-level requirements and configurations for crew and cargo launch systems to support the Lunar and Mars exploration programs.

—Development of a reference Lunar exploration architecture concept to support sustained human and robotic Lunar exploration operations.

—Identification of key technologies required to enable and significantly enhance these reference exploration systems, and a re-prioritization of near-term and far-term technology investments.

NASA is also currently examining alternative configurations for the Space Station that meet the goals of the Vision and the needs of our international partners, while requiring as few Shuttle flights as possible to complete assembly.

NASA PRIORITIES IN THE FISCAL YEAR 2006 BUDGET REQUEST

The President's fiscal year 2006 budget request for NASA reaffirms the funding strategy outlined above. NASA's fiscal year 2006 request endeavors to provide a balanced portfolio of programs to meet the needs of our national priorities in aeronautics and civil space. It maintains focus on key priorities, milestones, and schedules for the Vision introduced in the fiscal year 2005 budget.

To support the Administration's goal of reducing the deficit, NASA's budget was reduced $0.5 billion in fiscal year 2006 below the level planned in the 2005 budget for fiscal year 2006. In addition, returning the Shuttle safely to flight will cost $0.4 billion more in fiscal year 2006 than previously estimated. To address these and other items, we proposed a budget that provided $0.4 billion (11 percent) less for Exploration Systems than previously planned for, $0.3 billion (5 percent) less in Science, $0.1 billion (11 percent) less in Aeronautics, and $0.2 billion (4 percent) more in Space Operations. These changes were not easy, but in the end, we made the decisions to protect the priorities outlined above.

SCIENCE

The fiscal year 2006 budget request of $5.5 billion for the Science Mission Directorate will support 55 missions in orbit, 26 in development, and 34 in design phase. By 2010, the Science budget will increase by 23 percent over current levels.

The fiscal year 2006 budget includes $858 million for Mars and Lunar robotic exploration. The Mars rovers, Spirit and Opportunity, have far exceeded all goals with their unprecedented discoveries and longevity. Last year, the rovers found definitive evidence of an ancient body of water on the Red Planet, and they continue to gather data more than a year after their successful landing. We recently awarded contracts for six instruments to be flown on the 2008 LRO that promises unprecedented mapping of the Moon's surface. The 2008 LRO will be the first step in revolutionizing our understanding of the Moon, in much the same way that our Mars missions have transformed our understanding of Mars. As mentioned earlier, to simplify the management chain-of-command among mission directorates, our fiscal year 2005 Operating Plan update transfers management responsibility for the Lunar Exploration program, including LRO, to the ESMD. This will help to maximize the exploration and science benefits of this important program.

The budget also includes $218 million to maintain competitive efforts for the Explorer Program, $56 million for the Beyond Einstein program to study the universe, $234 million for studying the Sun in the Living With a Star program, and $136 mil-

lion for competitive opportunities in the Earth System Science Pathfinder program. With our international partners, we also continue to add to the constellation of Earth-observing satellites that monitor our planet while extending our reach and presence further into the solar system. NASA launched Aura to look back at Earth and give us a better picture of our atmosphere and changing climate, and the entire Earth Observing System continues to return trillions of bytes of information about our dynamic Earth. In the future, NASA plans to develop a "sensor-web" to provide timely, on-demand data and analysis to users who can enable practical benefits for scientific research, national policymaking, economic growth, natural hazard mitigation, and the exploration of other planets in this solar system and beyond.

NASA will continue to expand its exploration reach with an armada of existing and new space observatories operating in many different wavelengths and looking at different parts of our exotic universe. The three "Great Observatories"—Hubble, Spitzer, and Chandra—will continue to bring wondrous images to our eyes and exciting new scientific discoveries. Missions such as Kepler will provide a new understanding and knowledge of the planets orbiting stars far from our solar system, perhaps identifying new targets for voyages of exploration by future generations of explorers.

This budget also includes $372 million to continue developing the James Webb Space Telescope for a 2011 launch and provides $93 million in development funds for the Hubble Space Telescope to extend its scientific productivity. This investment in the Hubble, together with the synergistic use of the other two Great Observatories, and combined with the greatly increased capability of ground-based assets and the emergent science of optical interferometry, will ensure many years of new scientific discoveries.

NASA's decision in January 2004 not to service the Hubble was a very difficult one, given the Hubble's record of spectacular successes. That decision was made at a time when significant uncertainty remained regarding the technical solutions and risks associated with return to flight. After the two successful Space Shuttle flights needed to achieve our return to flight objectives, NASA will have learned a great deal more regarding the risks and operations of the vehicle than was known when the previous decision was made. I am committed to reassessing this earlier decision after return to flight, based on the relative risks to the Space Shuttle as well as the costs and benefits to our Nation's astronomy program. As a result, we are continuing our efforts to preserve the option for a Shuttle servicing mission for Hubble. Consistent with this ongoing activity, NASA's fiscal year 2005 Operating Plan update has fully funded the $291 million identified in the Conference Report accompanying the fiscal year 2005 Consolidated Appropriations bill and has consolidated the funding and management responsibility within the Science Mission Directorate. NASA will use the balance of the fiscal year 2005 funds to maintain options for HST servicing and deorbit. NASA has also begun the analysis of how a de-orbit module for the Hubble Space Telescope could be added to the manifest of such a Space Shuttle servicing mission. I will make a decision regarding a Shuttle servicing mission for Hubble following the two successful Return to Flight missions. In the interim, the Agency will keep all stakeholders apprised as this work progresses. NASA remains committed to a world-class, affordable program of space-based astronomy.

PREPARING FOR EXPLORATION

The fiscal year 2006 budget request of $3.2 billion for the ESMD includes $753 million for continuing development of the CEV, the vehicle that will serve as the core element for future exploration beyond Earth orbit. The CEV promises safer travel for astronauts into space, continuing U.S. human access to space as soon as possible after retirement of the Shuttle.

Our earlier plans called for operational deployment of the CEV not later than 2014. However, given the role of the CEV as a replacement for the Shuttle in providing human access to space, we are now seeking programmatic alternatives to allow development of the CEV to be completed as soon as possible. Acceleration of the CEV program will be accomplished by down-selecting to a single contractor sooner than originally planned, and by deferring other elements of the Exploration Systems Research and Technology plan not required for the CEV or for the early phases of human return to the Moon.

The fiscal year 2006 budget request includes $919 million (a 27 percent increase) for Exploration Systems Research and Technology that will enable designs for sustainable exploration, including $34 million for a revamped technology transfer program and $34 million for the Centennial Challenges prize program. The Agency continues to seek the support of the Congress for authorization to enable larger prize

awards. This budget also includes $320 million for a restructured Prometheus Nuclear Systems and Technology Theme for space-qualified nuclear systems. The technology and capabilities being developed by the Prometheus Nuclear Systems and Technology Theme are critical for enabling the power and propulsion needs of the Vision for Space Exploration. As part of the Agency's effort to define an Exploration Systems Architecture, NASA will examine alternative nuclear systems, including surface nuclear power, nuclear thermal, and nuclear electric systems. NASA will restructure Project Prometheus for space-qualified nuclear systems to support human and robotic missions with clear priorities focused on near-term needs. We expect to make program decisions to focus our nuclear technology efforts on our highest priorities for near-term applications as part of the Exploration Architecture study, to be completed this summer. In addition, the fiscal year 2006 budget request provides $806 million for Human Systems Research and Technology, which has been restructured so its programs are now linked directly to exploration requirements for human missions to the Moon, Mars, and beyond.

AERONAUTICS RESEARCH

NASA's fiscal year 2006 request for the Aeronautics Research Mission Directorate is $852 million, a significant portion of the government's overall investment in aeronautics research. To make the most of this investment, NASA's technical expertise and facilities for aeronautics research are becoming more focused and results-oriented. NASA's current aeronautics research is focused on enhancing the public good. NASA is also working to maintain a strong basic aeronautics research program and to establish a series of far-reaching objectives, each of which, if enabled, could significantly transform civil aeronautics. The results from the basic research, technology development, and demonstrations achieved by NASA's Aeronautics efforts will be transitioned for use by both Government and industry. The President's fiscal year 2006 request increased the vital research of the Aeronautics program in Aviation Safety and Security and in Airspace Systems. These two priority programs are fully funded to ensure timely results critical to meeting national goals. NASA works closely and constructively with other Executive Branch agencies to enhance our Nation's aeronautics capability. In this vein, NASA, along with the Departments of Defense, Homeland Security, Commerce, and Transportation, is a principal member of the interagency Joint Planning and Development Office (JPDO), which was chartered by the Century of Aviation Revitalization Act to oversee research and technology efforts for the Next Generation Air Transportation System. NASA is working closely with industry consortia and other Government agencies to develop advanced aircraft demonstrations, such as those that would expand the capabilities of high-altitude, long-endurance, unmanned aerial vehicles, which could have numerous commercial, scientific, and homeland security applications.

At this time, NASA is also working with other U.S. Government departments and agencies and industry to assess its facilities for aeronautics research. NASA will need to consider the possibility of closing some underutilized aeronautics facilities, while modernizing some others to become state-of-the-art facilities.

As we move forward, a broader national dialog on aeronautics R&D goals may be appropriate as we enter the second century of aviation. These discussions should include a range of stakeholders and customers, including the Congress. This process could lead to a national consensus for aeronautics R&D goals.

EDUCATION

NASA's fiscal year 2006 budget request includes $167 million for the Office of Education to support programs that will keep the United States strong in science, technology, engineering, and math education. NASA will establish clear goals, metrics, and monitoring capabilities for its education initiatives in the coming months to ensure that these funds will achieve the greatest benefit.

MEETING OUR OBLIGATIONS

The fiscal year 2006 budget request of $6.8 billion for the Space Operations Mission Directorate (SOMD) reflects the first step in the Vision for Space Exploration: returning the Space Shuttle safely to flight and resuming flight operations. Going forward, all SOMD expenditures will be consistent with the retirement of the Space Shuttle by 2010, while maintaining operational safety of flight throughout the program. The fiscal year 2006 budget includes $4.5 billion for the Space Shuttle program. The budget also provides $1.9 billion for the ISS. NASA currently is examining configurations for the Space Station that meet the goals of the Vision for Space Exploration and needs of our international partners, while requiring as few Shuttle flights as possible to complete assembly.

A key element in the future of the ISS program is the purchase of alternate cargo transportation services to supplement the Space Shuttle, and the development of new crew transportation capabilities to replace Shuttle when it retires. Because the ESMD has the mission to develop and acquire such crew and cargo capabilities for the ISS and beyond, I have transferred management responsibility for the activities and budget of ISS Cargo/Crew Services to ESMD from SOMD, as stated in the May update to NASA's fiscal year 2005 Operating Plan. The budget request before the Congress provides $160 million for these services in 2006.

We are making final preparations to return the Space Shuttle safely to flight in 2005. We have made more than 100 major maintenance modifications and upgrades to Discovery and its supporting systems, including new cabling and wiring that will support leading edge sensors, a digital camera, and a boom extension for the Shuttle's robotic arm that will enable us to inspect nearly all the outside areas of the orbiter's Thermal Protection System during missions. Technicians have installed the Forward Reaction Control System and the Reinforced Carbon-Carbon Nose Cap, and 88 sensors are being installed on each wing, of which 66 will measure acceleration and impact data, and 22 will take temperature data during Discovery's journey. Discovery and its propulsion elements are now at the launch pad undergoing the final tests and checks required prior to launch, currently scheduled to occur not earlier than July 13, 2005.

As the United States implements the Vision for Space Exploration, the Administration recognizes the value of effective cooperation with Russia to further our mutual space exploration goals. At the same time, we must appropriately reflect U.S. nonproliferation policy and objectives in our relationship with Russia. The Administration is thus seeking a balanced approach that continues to maintain strongly our nonproliferation goals while advancing potential U.S. cooperation with Russia on the Vision for Space Exploration. Such a balanced approach must include the Iran Nonproliferation Act of 2000 (INA), which currently constrains cooperation with Russia on the ISS, and threatens to have an adverse impact on cooperation with Russia in our future space exploration efforts related to human space flight. To that end, the Administration will soon engage the Congress, and we look forward to working with Congress to ensure that the Vision for Space Exploration is successful, while remaining fully consistent with broader U.S. national security and nonproliferation goals.

This year, we began our fifth year of continuous astronaut presence on the ISS. Astronauts continue their international cooperation onboard the Station through a variety of joint research activities.

TRANSFORMING NASA

For the last three decades, NASA and the Nation's human spaceflight program have been focused on the development and operation of the Space Shuttle and the Space Station. In its final report, the CAIB was very forthright in its judgment that these goals are too limited to justify the expense, difficulty, and danger inherent in human spaceflight, given the limitations of today's technology. The CAIB was equally forthright in calling for a national consensus in the establishment of a program having broader strategic goals. The Vision for Space Exploration proposed by the President is that program, and NASA has embraced this new direction. But to effect these changes, NASA must engage in a major transformation—taking the capabilities we have throughout the Agency and restructuring them to achieve these 21st Century goals. This is an enormous challenge, but we have begun to transform our entire organization to foster these changes and to enhance a positive, mission-driven culture.

The CAIB was also clear in its assessment that the lack of open communication on technical and programmatic matters was a direct cause of the loss of Columbia. We have understood and embraced this assessment, and are absolutely and completely committed to creating an environment of openness and free-flowing communication by continuing to assess our leadership practices.

—*Embracing Competition*.—NASA is embracing competition as a way to elicit the best from NASA's Centers, industry, and academia. The Agency is using competitive processes to encourage more cost-effective, innovative solutions to the scientific and technical challenges presented by the Vision. Over the past year, competitive selections in exploration have demonstrated increased collaboration between NASA's Centers and industry and academia. The engine of competition is the primary force behind the American economy, the greatest the world has ever known, and we plan to make greater use of this engine than has been the case at NASA in the past. NASA plans to pursue appropriate partnerships with

the entrepreneurial and commercial space sector to the maximum practical extent.

—*The Role of the Centers*.—While competitive processes are crucial to maintaining NASA at the "cutting edge" of science and technology, we must acknowledge that the NASA Centers and other Federal research and development laboratories exist, and have existed for decades, precisely because industrial competition does not serve to accomplish all of our national goals. In order to accomplish the national goals set forth by the President and Congress, NASA must set realistic priorities within limited resources. NASA Centers will have an important role in definition of the architecture and requirements for exploration beyond low-Earth orbit, and for the systems engineering and integration functions used in building the systems of that architecture. We will continue to assess the skill-mix that we require, the number of people we require, their location, and how we are organizing ourselves to fulfill our obligations to the President and Congress. To begin to create some of the workforce flexibility necessary for the future, NASA has offered voluntary separation incentives (buyouts) to employees in positions identified with excess competencies. To the extent that NASA's workforce needs revitalization, NASA will propose legislative initiatives to the Congress as part of the Agency's draft fiscal year 2006 Authorization Bill. Congress's enactment of the NASA Workforce Flexibility Act of 2004 is helping the Agency toward that end, and additional authorities will provide even more aid in managing the Agency's workforce.

—*Improved Decision-Making*.—NASA recently transformed its organizational reporting in order to provide more integrated decision-making. NASA field Center Directors now report directly to the Administrator, and I am drafting a position description for a new Associate Administrator who will manage the internal activities of the Agency. The Office of Education reports directly to the Director of Strategic Communications, who is also in charge of Public Affairs, External Relations, and Legislative Affairs, in order to provide a more integrated picture of what NASA is doing and can do for its stakeholders and public. NASA's new Office of Program Analysis & Evaluation has been created in order to provide analyses and assessments for strategic planning and budgeting decisions, independent cost estimates, evaluation of projects at major milestones, and feedback from the Centers on their capabilities and work climate. This is to ensure that the acquisition strategies, if done as planned, are executable, have exit and entrance criteria, contain clear approval milestones, and involve independent reviews.

—*Improving Financial Management*.—For the past two years, NASA has received a disclaimer of audit opinion on its annual financial statements due largely to two issues—financial system conversion, and accounting for property, plant and equipment, and materials and supplies. In fiscal year 2003, NASA converted the 10 separate NASA Center accounting systems and the associated 120 subsidiary systems, along with over 12 years of historical financial data, into a single integrated Agency-wide core accounting system. Problems associated with this conversion have been greater than expected and are taking longer than expected to correct. I regard improvement of NASA's financial management as one of my priorities.

—*Capital Asset Management*.—The management of NASA's capital assets, valued at $37.6 billion (83 percent of NASA's assets on the balance sheet), lacks the necessary internal controls and systems to support the proper valuation for management analysis as well as for audit purposes. Therefore, NASA is developing a comprehensive plan that will reform the manner in which we are accounting for and managing our assets.

THE NATION'S FUTURE IN EXPLORATION AND DISCOVERY

The aftermath of the tragic loss of the Space Shuttle Columbia on February 1, 2003, brought us to a watershed moment in the American civil space program. Choices had to be made. The President has put forth a choice, a strategic vision for the space program. That vision has been enunciated with exceptional clarity, and has been subjected to considerable public debate for over a year. While differences of opinion exist, the President's proposal has attained broad strategic acceptance. As a Nation, we can clearly afford well-executed vigorous programs in robotic and human space exploration, Earth science, and aeronautics research.

For America to continue to be preeminent among nations, it is necessary for us to be the preeminent spacefaring nation. It is equally true that great nations need allies and partners in this journey. That is what the Vision for Space Exploration is about.

As President George W. Bush said, "We choose to explore space because doing so improves our lives and lifts our national spirit. So let us continue the journey."

[Budget authority, dollars in millions]

By Appropriation Account, By Mission Directorate, By Theme	Full Cost							
	Initial Operating Plan Fiscal Year 2005	April Operating Plan Fiscal Year 2005	May Operating Plan Fiscal Year 2005	Fiscal Year 2006	Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2009	Fiscal Year 2010
Science, Aeronautics, and Exploration	$9,334.7	$9,335.0	$9,051.0	$9,661.0	$10,549.8	$11,214.6	$12,209.6	$12,796.1
Science [1]	5,527.2	5,527.0	5,554.0	5,476.3	5,960.3	6,503.4	6,853.0	6,797.6
Solar System Exploration	1,858.1	1,858.0	1,787.0	1,900.5	2,347.7	2,831.8	2,998.9	3,066.1
The Universe	1,513.2	1,513.0	1,475.0	1,512.2	1,531.5	1,539.4	1,495.0	1,406.7
Earth-Sun System	2,155.8	2,156.0	2,291.0	2,063.6	2,081.2	2,132.2	2,359.0	2,324.8
Exploration Systems [2]	2,684.5	2,684.5	2,356.0	3,165.4	3,707.0	3,825.9	4,473.7	5,125.5
Constellation Systems	526.0	526.0	422.0	1,120.1	1,579.5	1,523.7	1,990.9	2,452.2
Exploration Systems Research and Technology	722.8	722.8	766.0	919.2	907.3	989.2	1,050.3	1,078.5
Prometheus Nuclear Systems and Technology	431.7	431.7	270.3	319.6	423.5	500.6	614.0	779.0
Human Systems Research and Technology	1,003.9	1,003.9	897.7	806.5	796.7	812.4	818.5	815.8
Aeronautics Research: Aeronautics Technology	906.2	906.0	962.0	852.3	727.6	730.7	727.5	717.6
Education Programs: Education Programs	216.7	217.0	179.0	166.9	154.9	154.7	155.4	155.4
Exploration Capabilities	6,704.4	6,830.0	7,114.0	6,763.0	6,378.6	6,056.7	5,367.1	5,193.8
Space Operations	6,704.4	6,830.0	7,114.0	6,763.0	6,378.6	6,056.7	5,367.1	5,193.8
International Space Station	1,676.3	1,676.0	1,676.0	1,856.7	1,835.3	1,790.9	2,152.3	2,375.5
Space Shuttle	4,543.0	4,669.0	4,964.0	4,530.6	4,172.4	3,865.7	2,815.1	2,419.2
Space and Flight Support	485.1	485.0	474.0	375.6	370.9	400.0	399.7	399.1
Inspector General	31.3	31.0	31.0	32.4	33.5	34.6	35.2	37.3
TOTAL	16,070.4	16,196.0	16,196.0	16,456.3	16,962.0	17,305.9	17,611.9	18,027.1
Year to year increase	.....	.....	.....	2.4	3.1	2.0	1.8	2.4
Emergency Hurricane Supplemental	126.0	.....	.....	.....	.....	.....	.....	.....

[1] Science Mission Directorate reflects the combination of the former Space Science and Earth Science Enterprises.
[2] Beginning in fiscal year 2006, Exploration Systems moves from Exploration Capabilities to Science, Aeronautics and Exploration. Exploration Systems Mission Directorate reflects the combination of the former Biological & Physical Research and Exploration Systems Enterprises.

Totals may not add due to rounding.

SPACE SHUTTLE RETIREMENT

Senator SHELBY. Thank you, Dr. Griffin.

The proposed budget for NASA has the Space Shuttle scheduled for retirement in 2010. We have been talking about that. And the next man-rated vehicle, the crew exploration vehicle, CEV, is expected to be ready by 2014. The critical funding for the CEV, I understand, is dependent on the retirement of the Shuttle. It has been widely reported, Dr. Griffin, that you are an advocate of closing this 4-year gap—I mentioned it in my opening statement—in the U.S. launched manned space flight.

Whenever I hear about the acceleration of such programs, concerns arise, being an appropriator, about cost increases and development setbacks. So how much do you anticipate accelerating the CEV will increase the near-term costs of this vehicle? And where will these funds come from?

Mr. GRIFFIN. Sir, the widely circulated reports of my dissatisfaction with the gap in manned space flight have the virtue of being true.

Senator SHELBY. I am glad. Thank you.

Mr. GRIFFIN. I am dissatisfied with those, and we will be working to close that gap.

I will say at the outset that I cannot say, at this moment, what the near-term cost increases will be because that study effort is ongoing as we speak. When I have some knowledge of that, it will be communicated to this subcommittee and to the Congress. But let me outline the broad plan for things we might do to accomplish that.

First of all, I might add also, I believe it is true, when one stretches a project out beyond its appropriate and natural lifetime, that also causes cost increases.

Senator SHELBY. It does.

Mr. GRIFFIN. The 10-year period that we have been planning on as our first plan to design and develop and procure the new crew exploration vehicle is a lengthy period of time relative to our prior history in manned spacecraft development, and I believe reflects lack of the best possible planning as much as it does any fiscal realities.

That said, what could we do to make a difference? The first thing, as I have indicated, that we could do is we, NASA, have announced in our early planning documents to carry two contractors through 2008 before making a final down-select. I believe that the design of the crew exploration vehicle should be sufficiently straightforward, should be sufficiently within our experience base, that it may not be necessary to carry two contractors that long, that it may be more appropriate to down-select earlier, as I said, in fiscal year 2006. That saves an amount of money on the order of $1 billion or more, which can be used in the near term to fully fund one vehicle.

Second, some of our early planning has focused on the possibility of hardware demonstrations in mid-term development for the crew exploration vehicle. Those may or may not be necessary. We will be examining that, as we will be examining the rest of these issues,

but certainly such early demonstrations will require money that might best be spent bringing the vehicle to completion.

Third, as I have indicated, we have a substantial technology development line in exploration systems. I have been in charge, on behalf of the Defense Department in prior experience, of even more substantial technology development budgets, and I would say that, regarding my personal preferences, nothing would give me more pleasure than to sow the seeds widely in our NASA technology development. It has been a long time since we have been able to afford to do that. I would like to do it. But we must put development of new technology in second place behind the development of existing capability on the part of the United States to ferry astronauts and limited amounts of cargo to and from the Space Station and to get started down the path back to lunar return.

COST CONTROL AND TECHNICAL VIABILITY

Senator SHELBY. Doctor, along those same lines, financial responsibility, we have a great challenge, all of us here. What steps is NASA taking to ensure that the contracts it enters into are independently assessed for cost control and technical viability?

Mr. GRIFFIN. Sir, you raise a very important area. As I know that everyone knows, whether directly or not, you are referring to the fact that our audit posture is not a favorable one. We received at the end of 2004 a red audit. We expect to receive another one, I am told. We, NASA, need to frankly get busy on our financial accounting and make sure it passes all the tests.

We also need, in terms of the conduct of our programs, to make sure that, when we sign contracts, they have clearly specified goals, funding profiles are clearly made available, and, in general, we know what we are doing.

I am in the process of establishing a new Office of Program, Analysis, and Evaluation (PA&E), which will carry a set of forward-looking and backward-looking responsibilities, to wit: for backward-looking responsibilities, we will be assessing programs as they carry forward and determining whether they are meeting their cost schedule and performance goals, and making recommendations as to what to do if they fail with those.

We will also be looking at our track record for the development of hardware in terms of cost and schedule, and we will be factoring those estimates from the past into our predictions for the future.

Looking forward, the new PA&E office will carry the responsibility for strategic budgeting, making sure that we have appropriately accounted for all the exigencies which we can determine. And the new office will carry a directorate for advanced planning, helping to remove some of the responsibility for the advanced planning function from those mission directorates, which must carry it out. I have referred to this as eliminating the "fox in the henhouse" problem. I want my mission directorates focused on executing the direction they are given, rather than determining what that direction should be.

I hope and believe that this new office will assume a major responsibility for helping to get our programs on track.

Senator SHELBY. Senator Mikulski.

HUBBLE SPACE TELESCOPE

Senator MIKULSKI. Thank you, Mr. Chairman.

Picking up, I would like to go right to the Hubble space telescope. You know the history. Administrator O'Keefe was going to cancel the Hubble. He did agree to seeking a second opinion, and the National Academy of Science recommended that we do it, and they recommended two possibilities: a robotic mission to repair Hubble robotically—not repair but give it its batteries and its new optics; and then the other was a Shuttle mission for which there is some question about the safety of the astronauts.

Now, where are you on the Hubble? And where do you see us going? And in support of Hubble, what will it take from this subcommittee to support you to do that?

Mr. GRIFFIN. Senator, as I believe this subcommittee and, indeed, most of the world paying attention to Hubble knows, I have committed to re-examine the decision to do a Shuttle Servicing Mission 4, SM–4, in support of Hubble refurbishment and upgrades once we have accomplished our return-to-flight objectives.

To recap the reasons behind that statement, I would say that Administrator O'Keefe's decision made in the aftermath of the loss of *Columbia*, and before we had our return-to-flight planning fully fleshed out, was the reasonable one for the time, but when we return the Shuttle to flight, it will be essentially a new vehicle, and in some specific ways it will require careful examination to assess its ability to support SM–4, and that is what we will do. It is appropriate, I think, then to reconsider that earlier decision in light of the fact that we will be flying, you know, a very much improved vehicle and to assess the relative risks of a Hubble mission.

The National Academy did suggest that the human servicing mission was the proper path to go down, and in addition, there was an independent committee established to assess the feasibility of a robotic servicing mission. Before I was nominated to head NASA, I was the head of that independent commission. I think it is safe to say, although my tenure on that committee was interrupted by President Bush's nomination of me to serve as Administrator, I spent enough time with that committee to know definitely that each and every person on that committee, all of them very capable engineers and scientists, believed that the robotic mission was infeasible to accomplish within the time available before Hubble would degrade irreversibly and within any reasonable amount of money that could be appropriated to accomplish it.

I believe that is the best technical judgment that we will get concerning the feasibility of robotic servicing of the Hubble within the available time, and I think we should simply get off that page.

Senator MIKULSKI. Without getting on to the page, first of all, number one, we thank you for taking this so seriously and giving it such a high level of professional attention. In your testimony, both on page 3 and 6 about the Hubble, as I understand it, you say servicing of the Hubble will depend on the performance of the return to space on the Shuttle safely and the return of the astronauts and that it would take two missions to do that, to assess whether, according to the testimony on page 3 and 6, whether the station was up to a Hubble mission.

My question then: What would be the timeline where you would see those two missions being accomplished? And in the meantime, what should Goddard do? Does it just stand down and we could lose everybody and everything? Or do you see things moving forward in a simultaneous way? And what would be the price tag on that if that is your administrative recommendation?

Mr. GRIFFIN. Yes, Senator. I will return to this in a moment, but it is correct that we need the two Shuttle return-to-flight missions in order to fully assess certain technical issues that I will get to in a moment.

If we were to wait for the conclusion of those two missions to begin work at Goddard on SM–4, we would, if I could use a colloquial expression, get ourselves behind the eight ball on doing that servicing. And so I——

Senator MIKULSKI. It would be too late.

Mr. GRIFFIN. It would be too late.

Senator MIKULSKI. So when do you——

Mr. GRIFFIN. So I have directed Goddard to begin work on Shuttle Servicing Mission 4 under the assumption that we will be successful with return to flight and in our technical assessment of Shuttle capabilities. The first return-to-flight mission should occur in July, the second one in September, and, by that time, we will have accomplished the detailed test objectives we need to accomplish in order to know that it will be safe and effective to allow astronauts to service Hubble from the Shuttle.

EARTH AND SPACE SCIENCES

Senator MIKULSKI. Well, we, of course, wish Godspeed to our astronauts, and I know Senator Hutchison will be raising some important Shuttle questions, I presume. Number one, that is heartening. Number two, we look forward to talking about what we need to put in the appropriations to keep the simultaneity of these two endeavors going.

But if I could add just another thing—because we need to address the Shuttle; we are Shuttle obsessed, as you can imagine. Earth science and space science, do you see new—as you know, there was another National Academy study that said we were losing ground on the study of Earth science, that projects were either descoped, delayed, detoured, derailed, et cetera. And now with NOAA being in this subcommittee, do you see the potential to continue or to focus on a true Earth science set of projects that truly serve this Nation and even friends around the world in terms of understanding our planet both in terms of any number of aspects that have a great impact, from atmospherics to ocean currents to ocean winds and a variety of other things that truly impact the global environment and also how to make those projections that save lives and save livelihoods, kind of a NOAA, NASA, and perhaps NSF partnership?

Mr. GRIFFIN. Yes, Senator, I absolutely look forward to enhancing the NOAA, NASA, and NSF partnership in Earth science. Several comments on your points.

First of all, we at NASA have heard the response of the community to the changes we made or proposed and carried out in our science program in fiscal year 2005. We had allocated, and planned

to allocate, in fiscal year 2006 a substantial increment to funding Mars exploration, robotic Mars exploration in the out-years. We have withdrawn from that and are rebalancing our portfolio to again provide emphasis on Earth science as an important part of our portfolio. So we have heard the response of the science community, and we in turn are being responsive. And you will see that as we go forward in our op plan for 2005 and in 2006.

Senator MIKULSKI. Well, my time is up, and if we have a second round, we will return to some other important issues.

Senator SHELBY. We will have a second round.

Mr. GRIFFIN. Okay.

Senator SHELBY. Senator Hutchison.

BUDGET PRIORITIES

Senator HUTCHISON. Thank you, Mr. Chairman.

Dr. Griffin, we have heard that some Members of the House have urged moving funds from the International Space Station budget for 2006 into the aeronautics line to offset the proposed reductions in that area. That was the President's budget, and clearly having the International Space Station and the return to flight are the highest priorities. I wanted to ask you if you can tell the subcommittee what impact any reduction such as that in the International Space Station funding would have. And will you oppose that?

Mr. GRIFFIN. Senator Hutchison, I am the President's appointee and I support the President's budget. The administration's allocation of relative priorities between human space flight, science, and aeronautics is clear, and I do not propose any changes to those priorities.

Within those lines, we may choose to emphasize or de-emphasize certain things, but I simply cannot support moving money from completing the assembly of the International Space Station to any other activity.

Senator HUTCHISON. Thank you.

The Space Shuttles were originally intended to be capable of flying 100 missions. The *Columbia* had flown the most at 27. When you were talking about the expense of making the Shuttles go longer, I am sure that maintaining them does get more expensive as they grow older. But is that still something that would be more feasible since they were supposed to have been able to have longer terms anyway as a way to lengthen—or shorten the gap between the crew return vehicle coming on if, in fact, you are not able to bring that in at an earlier stage?

Mr. GRIFFIN. Senator, I cannot support that position. Again, I am the President's appointee, and the administration is committed to Shuttle retirement in 2010. The expense of maintaining the Shuttle fleet year after year is so great that, in order to move effectively ahead on the crew exploration vehicle systems, we must retire the Shuttle. We must retire it in an orderly fashion. We must fly every flight safely. But we must get it behind us.

The Shuttle is inherently flawed. It does not have an escape system for its crew, and we all know that since human perfection is unattainable, sooner or later there will be another Shuttle accident. I want to retire it before that flight can occur.

I want to work with you and this subcommittee to understand how we can accelerate the development of the crew exploration vehicle so that there is the minimal possible gap in transitioning from one system to another.

On a personal note, in my late 20s and early 30s, I was working in the space program, as I have most of my life, when we underwent a 6-year gap between the completion of the last Apollo, the Apollo-Soyuz flight, and the first Shuttle flight. That gap damaged our program. It damaged our unmanned program as well. It was damaging to the United States. I don't want to do it again, and I know you share that view. But the way to prevent that is not to continue to rely upon the Shuttle, which is an outdated system, but to move as expeditiously as we may toward the new system. And that is what I am here to support.

Senator HUTCHISON. I accept that, and I think you have made the case very well. Let me ask you this: If you are going to put more emphasis on the crew return vehicle, there have been other suggestions that you would take money out of the basic research budget and the International Space Station. Is that something that would be viable in your mind? And what impact would it have on the long-term national science asset that we have there if you take money from the research projects in the Space Station for the crew return vehicle?

Mr. GRIFFIN. Senator, the impact would be of delay, not of deletion. Yes, if I need the money to close the gap in human space flight between the end of the Shuttle program and the beginning of its replacement, my recommendation would be to take money from the research to be done on Space Station or other exploration systems research and technology development, simply because, as I said in my opening statement, we cannot do everything on our plate and we have to have priorities and first things first.

Now, the research of which you speak is very valuable, and it must be done. But if it is delayed a very few years in order to allow us to complete, in effect, a suitable transition between systems, then I believe that that delay would be worth it, and that would be where I would look for the money.

Senator HUTCHISON. Let me just ask my final question then. If you did something like that, you do not mean that you would stop all of the research on the Space Station at any point, do you? Or would it be just some projects that could be put off?

Mr. GRIFFIN. The phrase I have used is that when cutting budgets, you need to use a meat axe rather than a scalpel—or a scalpel rather than a meat axe, pardon me.

Senator HUTCHISON. Thank you.

Mr. GRIFFIN. Yes. It needs to be done carefully. We would obviously not go in and stop, on a wholesale basis, everything which is ongoing. Stopping projects in their middle is usually not an effective way to save money. I would look generally toward delaying projects which have not yet started.

The Space Station, once built, will be an excellent platform for a number of different kinds of engineering, physical science, and biological research. And we will do that. It will be flying for many, many years. But if, in order to produce the next vehicle, which will allow us to ferry astronauts back and forth to the Space Station,

I need to delay some of that research, then that is what I will have to do.

Senator HUTCHISON. "Some" is the operable word.

Mr. GRIFFIN. Yes.

Senator HUTCHISON. Thank you.

Mr. GRIFFIN. Thank you, Senator.

Senator SHELBY. Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you.

Let me first congratulate you, Mr. Chairman, on assuming the responsibility of chairing this subcommittee with an enlarged scope of jurisdiction.

Senator SHELBY. Thank you.

Senator COCHRAN. We look forward to working closely with you to help ensure that we meet our goals and identify our priorities in a thoughtful way. And I think starting the process with a new Administrator of NASA is an exciting opportunity for all of us. I want to congratulate you, Dr. Griffin, for your selection as Administrator of this important agency and say that we appreciate the fact that you are a person of experience, a great deal of education in these technical and scientific areas. I was just looking at the number of Master's degrees that you have been awarded at various universities, and it is really quite impressive, and I hope you do not mind my referring to you as "Dr. Griffin," because you did get a Ph.D. also, and that was in the University of Maryland system, which I know Dr. Mikulski may identify with, with some pleasure. This is a big job, and I know you are well suited and totally well qualified for it. And even though you have indicated that you support the budget request because you are the President's nominee and you are in this position to carry out these policies, we do notice that the research funding has been reduced because, I guess, of the increase in exploration initiative costs, over $675 million for the Moon and Mars exploration initiative. So this decreases other activities.

Have you looked at ways that you can balance that competition inside the agency so that there is not any serious harm done to interests for traditional activities that have been carried out by NASA?

Mr. GRIFFIN. Senator Cochran, the science budget in the large at NASA has not been cut to serve the needs of exploration, Moon and Mars. The science budget request for 2006 is $5.5 billion. We expect it to grow with inflation in the out-years. We have not, and, unless under the most extreme budget pressure, I would not, cut science in order to fund manned space flight. I believe that NASA has several substantially differing activities: human space flight, science, and aeronautics.

The President's priorities among those differing activities are expressed in his fiscal year 2006 budget, as are the proportions among those numbers, and I would intend to respect those proportions. If we need to solve problems in human space flight, we will do it within the human space flight suite of activities.

So I must respectfully suggest we have not cut the science budget in order to do exploration. In fact, I would say that the exploration budget has been reduced and exploration activities have

been delayed in order to accommodate Shuttle return-to-flight costs.

INTERNATIONAL COOPERATION IN THE SPACE PROGRAM

Senator COCHRAN. In looking at the global situation in terms of our relationships with other countries and cooperation in the space program—Russia has been actively involved in the manned program for a good many years—are there other nations that are interested or active in becoming partners in space exploration?

Mr. GRIFFIN. Senator, I have not had the opportunity to assess that yet. I will be, in fact, attending the Paris Air Show next month, and there will be, as you know, other international events at which my attendance will be expected, and I will be there. And then there will be formally arranged meetings, government-to-government meetings as well. And in the course of the next few months, I hope to get a feel for which nations wish to join us in this venture. I hope there are some.

I think one of the best things to come out of the Space Station program is the international partnership that has been developed, and the administration takes very seriously this Nation's commitments to those partners. So I look forward to it. I have not had an opportunity to assess it yet.

Senator COCHRAN. Well, we look forward to working more closely with you as we go through this budget process, and we intend to closely consult with you along the way to be sure that we cooperate in supporting the administration's initiatives in these areas. We appreciate your leadership.

[The statement follows:]

PREPARED STATEMENT OF SENATOR THAD COCHRAN

Mr. Chairman, I am pleased to join you in welcoming Dr. Griffin to the hearing today. NASA's history is without comparison. Continued human exploration will broaden our understanding of the universe, and coupled with its dedicated pursuit of scientific research, NASA will help secure our nation's position at the cutting edge of technology well into the future.

Dr. Griffin, I note that you are a man of action. While you have been in your job for less than a month, you have already made important decisions for the future of NASA, to include awarding the Shared Services Center contract and accelerating the development and launch of the shuttle replacement into orbit.

Stennis Space Center in Mississippi has been known for its engine testing work, and I am proud to acknowledge the recent selection of Stennis as the location for the NASA Shared Services Center. We welcome the center to Mississippi and look forward to the contribution that the men and women of Mississippi will make to help NASA be more efficient in conducting its administrative activities.

I look forward to working with you in the future and to hearing your testimony today.

NUCLEAR POWER SYSTEM

Mr. GRIFFIN. Thank you, Senator, and I will offer you my full cooperation as Administrator.

Senator SHELBY. Dr. Griffin, Project Prometheus has been a priority for NASA over the past 2 years. This nuclear program has the potential of providing great benefit to future NASA missions and the exploration vision. However, the Jupiter Icy Moons Orbiter mission has been determined to be too technically difficult, and the same operating plan you have mentioned in your written testimony

also includes a reduction of $161 million to the Prometheus program to reflect the mission deferment.

With the deferment of the Jupiter Icy Moons mission, NASA is looking at alternative missions to demonstrate a nuclear power system in space. Was the Jupiter Icy Moons Orbiter mission too ambitious? If so, what are the possibilities that NASA intends to explore? And how will this affect the funding level from Prometheus in the 2006 budget?

Mr. GRIFFIN. Senator, there were several questions there, and if I miss one, you can remind me. Let me address the issue——

Senator SHELBY. I bet you won't miss one.

Mr. GRIFFIN. I don't want to bet too much, but we will try.

The Jupiter Icy Moons Orbiter mission was, in my opinion, too ambitious to be attempted. Let me give a couple of specifics.

The vehicle would have required at least two heavy-lift launches to put into orbit where it would have been assembled prior to its departure from Earth to go to Jupiter. That would have been an extremely expensive undertaking, one which we have not performed before.

The nuclear electric propulsion system being developed for it does not presently exist, would not exist for some time, and if successfully developed, would have required approximately twice the world's annual production of xenon to be fueled to carry out the mission. It was not a mission, in my judgment, that was well formed.

The original purpose of the Jupiter Icy Moons Orbiter was to execute a scientific mission to Europa, a moon of Jupiter which is extremely interesting on a scientific basis. It remains a very high priority, and you may look forward in the next year or so, maybe even sooner, to a proposal for a Europa mission as part of our science line. But we would, again, not favor linking that to a nuclear propulsion system.

With that mission taken off the table as being something just too big for our plate at this time, the question then arises as to what shape and form we want the space nuclear program to be. I will say categorically we cannot effectively explore space without nuclear power and in the longer run nuclear propulsion. But having taken JIMO off the plate, Jupiter Icy Moons Orbiter, the proper ordering of priorities now changes.

The first thing we will need is surface nuclear power for our astronauts when they return to the Moon in a decade or so. The next thing we will need will be nuclear thermal propulsion——

Senator SHELBY. How difficult will that be?

Mr. GRIFFIN. Sorry, sir?

Senator SHELBY. How difficult will that be?

Mr. GRIFFIN. We need to execute some development programs that we have not done in a while, but many nuclear reactors have been flown in space—one by the United States, many by the former Soviet Union. We have that technology. We merely have to integrate it again.

Nuclear thermal propulsion will be the next step. A nuclear upper stage is the most effective way to take humans to Mars. The United States had prototype versions of such engines back in the late 1960s and early 1970s. In 1972, when President Nixon decided

that the Nation would not be going to Mars under his tenure as President, the NERVA, nuclear engine for rocket vehicle applications, program was terminated. We have not had a need for such a program in the last three decades. As we journey forward to Mars, we will need it.

Finally, the last priority would be the nuclear electric propulsion which was linked to JIMO, and that will be useful for cargo missions to Mars, but well after we start sending humans there.

MAINTAINING SKILLED WORKFORCE WITHIN SPACE SHUTTLE AND STATION ACTIVITIES

Senator SHELBY. Doctor, in another area, to what extent will it be possible or even desirable to maintain employment of skilled workers currently involved in Space Shuttle and station activities as NASA transitions to a post-Shuttle era and reduces its station-related programs?

Mr. GRIFFIN. Senator, it will be absolutely crucial. As I pointed out earlier in response to Senator Hutchison's question, I, as a professional, lived through the gap in manned space flight from 1975 to 1981, and I do not propose to repeat it. One of the things that happened during that period was the loss of skilled and experienced personnel in space flight of all varieties, both manned and unmanned, to other pursuits. When those people have gone to other occupations, our experience is we do not get them back. So we must effect an orderly transition from the shuttle to the new system.

I owe this Congress a plan for doing that, and I have said on several occasions in several ways that the first step is minimizing that gap.

FIELD CENTERS ROLE IN THE PROMETHEUS PROGRAM

Senator SHELBY. What is your view, doctor, of the role of the field centers in the Prometheus program? In other words, do you believe that the program is doing a good job of utilizing the full range of research and development capabilities that exists within the field centers, and if not, what action do you plan to take to employ the technical talent base within NASA?

Mr. GRIFFIN. Senator, the question was applied by you to Prometheus, but it goes beyond that. I have not had an opportunity to look at the Prometheus program directly. As I said, we will be restructuring it, not because it is not a valuable program, it is incredibly valuable, but I want to change the definition of what is produced first.

Senator SHELBY. Sure.

Mr. GRIFFIN. Now, with regard to your broader question of what are the value of the field centers, I have also in public utterances been most specific on this point. The President's Vision for Space Exploration is a multi-generation program. It will require decades. The people who will be taking us to Mars are in elementary and middle school today. Contractors and businesses come and go. They succeed and they fail. The Government ownership of the intellectual property that sustains our space exploration journey will be with us always, as long as there is a Government.

The core capability, the core intellectual property that will sustain this journey, must reside within NASA as an organization, and in particular within the NASA field centers. I am committed to maintaining and to restoring capability where we need to do it. I am committed to changing the skill mixes of the centers as we transition from a Shuttle operations culture to the development culture required for the new vehicle systems we must bring about. But in the process of adjusting the details of how the field centers accomplish their missions and what they do, I am committed to retaining strong field center capability.

HEAVY LIFT LAUNCH VEHICLE

Senator SHELBY. Doctor, what is the status of planning for a heavy lift launch vehicle to send large quantities of mass to low Earth orbit or directly to the Moon?

Mr. GRIFFIN. Senator, that is a very interesting question. I can plan the development of a heavy lift launch vehicle from a clean sheet of paper, which would likely be too expensive for this subcommittee or the full committee to provide me the money, or I can utilize the heavy lift launch vehicle that I presently own as the NASA Administrator, which is the Space Shuttle. We talk about retiring the Space Shuttle. What is really meant is that we need to retire the Space Shuttle Orbiter. The Space Shuttle is a system of systems. It consists of a number of very, very valuable, very expensive to develop components, the Shuttle external tank, the Shuttle solid rocket boosters, Shuttle main engines and other lesser things, as well as the assembly and launch pad infrastructure at the Cape.

Every time that stack lifts off, it carries 120 or 20 metric tons into orbit. If I remove the orbiter and put on a cargo module, I have a heavy lifter. To me, I have indicated on several occasions, that seems the shortest path to a heavy lifter. If money were free and being provided in unlimited quantities, I would enjoy the challenge of developing a new vehicle, but we all know it is not, so I believe that that is the appropriate way forward.

LAUNCH VEHICLES

Senator SHELBY. Where are we regarding the expendable launch vehicle versus a Shuttle derived launch vehicle?

Mr. GRIFFIN. Do you mean the evolved expendable launch vehicle?

Senator SHELBY. Yes, evolved.

Mr. GRIFFIN. The evolved expendable launch vehicle families, offered by Lockheed Martin and Boeing, are the Nation's transportation fleet for payloads of 20 metric tons or less, and I certainly would propose no NASA development of such vehicles because we do not need more.

In terms of payload capability above about 20 metric tons, the field is open, and again, from NASA's perspective to meet my heavy lift needs, I would probably stick with what I have. Again, we need to make these judgments on a cost basis and I am in the process of assessing those costs, but it looks likely to me that sticking with what I have is the way to go.

Senator SHELBY. Senator Mikulski.

STATION ASSEMBLY-SHUTTLE FLIGHTS

Senator MIKULSKI. Thank you, Mr. Chairman.

I want to pick up a line of questioning both from Senator Shelby and Senator Hutchison, and it goes to the Shuttle and the completion of the station. How many flights will it take to complete the station, how many Shuttle flights, and how long do you anticipate that this is going to take?

Mr. GRIFFIN. Senator, the current plan on the table at NASA is a 28 flight sequence, of which 18 flights are assembly flights, 5 flights are logistics flights, and 5 are utilization flights. I have indicated, in response to the Senator's question, that some of the research to be accomplished on the utilization flights could be deferred until we have a new system. With some time to plan, 2 or 3 years in the future, out to 2008 or so, some of the logistics flights cargo could be offloaded onto expendable vehicles, the Arian Transfer Vehicle, the Japanese HTV or new commercial systems which we would develop.

That leaves a core of 18 Shuttle assembly flights. Again, with time to plan, even some of that hardware could be put up by alternate means, but right now we are looking at a core of about 18 assembly flights.

Senator MIKULSKI. Well, let me jump in here because first of all, again, we are very concerned about the Shuttle, the safety of our astronauts, but also those 15,000 people, both contractors and civil servants who are employed.

Now, it is 2005. We are talking about retiring the Shuttle in 2010. So that gives us essentially 4½ years to do 15 flights. Do you think it can be done? Well, actually, that is not the question. I am really concerned that with the magnitude that it will take to complete the station, and we know it must be completed for both scientific reasons, and honoring our commitment to international partners. We do not want to jeopardize that relationship because we are going to need it, we both need and want international partners for other things that we hope to do in space. But my point is then, if you have, let us just say 18 in 4½ years, that seems like a robust schedule, given the fact that by the time we do the next two flights, presuming everything goes the way we hope, that will be—we are then into 2006. So that gives you 2006, 2007, 2008, et cetera. How do you see all of this unfolding?

Mr. GRIFFIN. Directly answering your question, it is an extremely robust schedule. We are not sure we can accomplish it. We are looking at alternative assembly sequences for the Shuttle that we would use in case we are not able to get all 18 assembly flights accomplished with the Shuttle. I will provide a set of options for this Congress by midsummer.

Senator MIKULSKI. I think what we are looking at then is the impact on the workforce, and also presuming then that they are working nonstop to do this, we would be concerned about then its impact on safety, just even general fatigue, of both people and the Shuttle itself. We have three orbiters and one has to go, one has to be ready to go, and one is taking a breather. That is kind of a liberal arts graduate's description of this.

But then, of course, what would be the cost to do this? Will it accelerate, et cetera? I think you might not be able to do this today. We know you support the President's budget, but we would like to also know the consequences of this because we are then talking about five or six flights a year, and we have not even ever met that—have we ever met that type schedule?

Mr. GRIFFIN. I believe we have, but it was very difficult, and it was in a different environment. With the care that we are taking today we are not planning on a six flight per year schedule. We would need roughly four flights a year to fly 20 flights in the fiscal years 2006, 2007, 2008, 2009 and 2010.

Senator MIKULSKI. And with one flight hopefully going to Hubble.

Mr. GRIFFIN. And one going to Hubble.

Senator MIKULSKI. Which would be an additional flight.

Mr. GRIFFIN. Senator, your question is extremely on point. There is no question, as I said before, it is an extremely aggressive schedule and we must have fall-back options if we are not able to meet it, because we do not want the program to be schedule driven. We do not want safety to be compromised. We will provide, by midsummer, a set of options that we can offer to avail ourselves of if we are not able to carry out the aggressive flight rate required to get all 18 assembly flights completed by the time we are ready to retire.

Senator MIKULSKI. I think this subcommittee is looking forward very much to working with you and with our authorizer, Senator Hutchison, on this endeavor.

I had the good fortune to visit Texas with Senator Hutchison to see the kinds of research that we are talking about in the Shuttle, and also at Marshall, physical science, life science, that could be stunning, and that for an international partnership to have a completed Shuttle where we are really working together on breakthrough ideas, I think would go a long way to science, a long way to international cooperation. I think the world would feel better about the United States and its preeminence in space, particularly in the civilian side. So we want to be able to do that.

I know that my time is up, and my next area would be of course aeronautics.

Senator SHELBY. Senator Hutchison.

INTERNATIONAL SPACE STATION COMPLETION

Senator HUTCHISON. I just want to follow along with what Senator Mikulski was saying because it seems to me that you have got two major priorities here. You were very firm about wanting to retire the Shuttle on time, but also equally firm, as is the President, on finishing the Space Station for all of the reasons that Senator Mikulski said. If we cannot finish the Space Station with what you have available—let me rephrase. Are you prepared to say that finishing the Space Station is the top priority?

Mr. GRIFFIN. Well, the administration has said that we will finish the Space Station. For the next 2 to 3 years, unequivocally, we are dependent upon the Shuttle to go to the Space Station and begin the process of completing that assembly. If we look further out, there are alternative means we could engage to get that hard-

ware up there, and we of course would look at that because we need options. In the longer term, if time comes to retire the Shuttle and we are not finished, then I have said for the record on several occasions, both before and after becoming Administrator, that the United States should complete the station, but we may again encounter some delays in accomplishing that until we have the new system on board.

I do want to complete it. I think it is worth a lot for the United States to keep its word, to maintain our obligations to the partnership and to go forward together, and we will try to do that.

All we are discussing here are ways and means of accomplishing it, not whether or not the President is committed to completing the station, because with his speech of 1 year ago and his budget in 2006, he clearly is committed to that completion.

Senator HUTCHISON. As all of us have said, we are going to work with you. We know that you have to have time to put alternatives together, but just one more time to reemphasize, in addition to keeping our word to the international community, which is very, very important, it just seems if we are not committed to the science that one of the key reasons that we have NASA is diminished, and I do not want to ever have any indication that the actual science that will be done at the Space Station is in any way a lesser priority.

Mr. GRIFFIN. Yes, Senator. I do not think it is a lesser priority either, but again, if the funding to do science is getting in the way of the funding to complete the station, I would be presented with a Hobson's choice. I will work with you and with the subcommittee to minimize the dislocations, but if completion is the first priority, I must do what I must do.

Senator HUTCHISON. I understand, and we will work with you in every way. I just hope we do not end up being the hospital that is clean because there are not any patients.

I mean we really have to——

Mr. GRIFFIN. Yes, Senator, I understand.

Senator HUTCHISON [continuing]. Remember the mission.

Thank you.

Mr. GRIFFIN. I understand.

Senator SHELBY. Thank you, Senator.

Dr. Griffin, as we move forward how many Shuttle flights do you think will be needed to complete construction of the International Space Station?

Mr. GRIFFIN. Well, again, the final answer on that may depend on the outcome of some of the studies we have ongoing and which I have promised to you by midsummer, and I understand that commitment. The current baseline is 18 assembly flights, 5 logistics flights, 5 utilization flights.

INTERNATIONAL AGREEMENTS

Senator SHELBY. In regard to international partners, it no longer seems that NASA plans to provide everything that it promised or could in international agreements that govern the International Space Station program. What discussions are planned or underway with the other partners to rebalance what each partner is required

to do and what it gets in return? In other words, where are we going there?

Mr. GRIFFIN. Senator, as we stand today, we are committed to orbiting the partner hardware and providing the partner flights. Disasters can ensue, as we know. If there is any planned change to that, I would come forward to this subcommittee and discuss it first.

Senator SHELBY. Have any agreements been made in this regard at this time?

Mr. GRIFFIN. Not at this time.

FINANCIAL MANAGEMENT

Senator SHELBY. Okay. Financial management, we have to do this because we are in appropriation business here. NASA continues to face significant challenges in improving financial management. I know you have not been at NASA long, but in the past 2 years NASA's auditors were unable to issue an opinion on NASA's financial statements because NASA could not provide the auditors with sufficient evidence to support the statements. While NASA implemented a new integrated financial management system in 2003, NASA auditors found pervasive errors in 2004 financial statements generated from the new system. In October of this past year, the NASA Inspector General reported that one of the most serious management challenges facing NASA is, and I quote, "ensuring that the integrated financial management system improves NASA's ability to allocate costs to programs"—we have been talking about this—"efficiently provides reliable information to management and supports compliance with the Chief Financial Officer's Act."

Also in January of this year, 2005, the Government Accountability Office, in its High Risk Series Report stated, and I quote, "While it has taken recent actions to improve the contract management function, NASA continues to face considerable challenges in implementing financial management systems and processes that would allow it to manage its contracts effectively."

My question, Dr. Griffin is, does NASA have a written corrective action plan that addresses the scope of its problems and the resources at the time that will be needed to fix these problems pointed out by the Inspector General and GAO?

Mr. GRIFFIN. Senator, we do not at this point. I take the GAO's comments and our independent auditor's comments as seriously as I know how to say. We understand, as an Agency, that our financial accountability has been lacking. I will not hedge. We have lacked that. I have, as we speak, a team of people working on putting a plan together for how we will get from where we are to where you require and where we want us to be.

Senator SHELBY. You are committed to doing whatever is necessary?

Mr. GRIFFIN. I am absolutely committed to providing the resources necessary to get our financial management on track, and I will share with you the plan to do that when we have it.

Senator SHELBY. What obstacles have you encountered that would have an impact on your financial management efforts? Are you there yet?

Mr. GRIFFIN. We are really not. I have not been able to see obstacles so much as we simply have not stepped up to the plate on it. The major aspects of the situation are driven, as you know, by the fact that NASA has 10 field centers. They did not even historically all come from the same agencies. Some came from the Department of Defense (DOD), some were created out of a whole cloth, some came from NACA. They evolved their own financial management systems and they were never really linked up. Part of our integrated financial management plan, as the name implies, is to have, if you will, one NASA, one system, and be able to account for all the money in a common framework. Linking those 10 centers and headquarters together in a transparent and straightforward way has proven to be more of a challenge than anyone had thought. Clearly it has, because we flunked the last couple of years. I am absolutely dedicated to seeing to it that, as my tenure goes forward, we do not flunk, that we pass with flying colors.

Senator SHELBY. Thank you.

Senator Mikulski, you have any more questions?

RETAINING AND ATTRACTING SKILLED WORKFORCE

Senator MIKULSKI. Thank you.

First of all, I want to associate myself with Senator Shelby's questions about fiscal accountability, fiscal responsibility and implementing the reforms in the GAO report.

I also want to thank you in this testimony here for your candor about what you are facing. Actually, I think we are off to a good start even if some of the things are giving us heartburn, at least we feel that we are getting a candid conversation and look forward to more.

I am going to raise an issue about workforce. You talked about the astronauts that will be on the trip to Mars are now in elementary school, and we also know that NASA has an aging workforce in certain projects, so you need to retain, you need to recruit, and there needs to be a development of our future scientists and technologists.

Could you give us your view on two things, number one, the workforce at NASA and our ability to retain the qualified people that you need to complete the priorities that you outline and we support; and number two, what do you see NASA's role in really helping generate, cultivate, that next generation of scientists and technologists?

Mr. GRIFFIN. Well, Senator, this is a subject that, as I believe you know, I am quite passionate about.

Senator MIKULSKI. I know you are.

Mr. GRIFFIN. I sometimes say, who is it that you will find who loves education more than I do? That said, two things. First of all, we have $167 million in the NASA Education Program and more in the mission directorates as we sit here today. I believe that we need to focus that education program, establish goals and metrics for it, and make it effective, but it is a substantial amount of money.

In addition, I think it is time to recognize that NASA's biggest, most important, most lasting contribution to education for our future workforce is to do the kinds of things that excite young kids

enough to want to be part of the space program and to get an education to do it. They can get almost any kind of an education and we will have a place for them at NASA. We are a very broad Agency. We need a lot of different specialties, but an education is a requirement.

If we return to the Moon, if we set up a permanently manned lunar base there, if we go to Mars, if we visit the nearest asteroids, if we service the James Webb space telescope in future years, if we look beyond the Moon and Mars, young kids today and young kids of the future will want to be part of that program, as I did when I was a small boy, and they will do what is necessary with their education to get it.

It is in that sense that NASA best served the educational community in my humble opinion.

Senator MIKULSKI. On a personal note, you grew up in Maryland. You grew up in Aberdeen, close to a military base. It is the home of Cal Ripken.

Mr. GRIFFIN. Yes, Senator, I was born on a military base.

Senator MIKULSKI. That is exactly right, and you went to our public schools. What was it that got you interested in—what do you think—you have outlined those projects, but what got you interested?

Mr. GRIFFIN. This story is almost embarrassing to recount. I have not told it in public for some years, but it is true that—my mother was a teacher when I was a kid, and the first book that I was ever given was a book on astronomy and space. I have since commented that sometimes that based on what we know today, everything in that book was wrong.

Senator MIKULSKI. Gee, and I started with "The Three Bears."

Mr. GRIFFIN. Well, we went down different tracks. I still have that book actually, and I was 5. This was in 1954, and I was absolutely fascinated by it, and from that time forward I never considered for myself anything other than being a scientist or engineer or mathematician and involving myself in the space business. And I never did. So that was what motivated me.

I have no doubt—I hear often from—they are not kids any more—you know, men or women in their 30s whose early memories are the Apollo landings on the Moon, stimulated them into science, development of science and engineering. I hear from other young men and women who have technical educations that they were fascinated by Bob Ballard's discovery of the *Titanic*. Any sort of exploration into the unknown, any sort of discovery of the new and unknown excites our kids. And if you catch them at that age, they are with you forever.

We all went through puberty. If you let kids get to middle school and high school before having fastened onto that interest, they are going to be interested in girls and football, or guys and football, whatever it is, but it is less likely to be science and engineering because science and engineering are hard.

Senator MIKULSKI. They are hard. Well, first of all, I could not agree with you more that it is, number one, people interested in young people to expose it to them; number two, that it is wonderful projects that get people excited and young people knowing and hearing about them. And then also, I believe, that with that $167

million in NASA's education budget, that we really get perhaps more of a focus on where we would like to do it. Should it be in those areas like what we would call extra educational institutions like science centers and others? Today is not the day of doing that, but we want this year to be a success. But we want to be preeminent for the decade. We want to be preeminent for the century in science and exploration.

So we look forward to working with you, and we would hope that all the work you do, you can start a treaty negotiation with NOAA and we will look forward to hearing about that. And I and the Hubble will be keeping an eye on you.

Mr. GRIFFIN. Senator, I will make sure that you do not have to keep a sharp eye. I will make sure that you know what we are doing with Hubble and with NOAA.

Senator MIKULSKI. Thank you very much.

Senator SHELBY. Thank you, Senator Mikulski.

ADDITIONAL COMMITTEE QUESTIONS

Dr. Griffin, I want to thank you for appearing here today before our subcommittee. I am sure you will be back many times. We will all be carrying on a dialogue with you. You have a lot of work cut out for you. I think you are up to the challenge. You bring the experience. You are candid, which is something we like, it is refreshing. We look forward to working with you. We have some hurdles to jump over, and you will be our leader in that regard.

[The following questions were not asked at the hearing, but were submitted to the Administration for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. The implementation plan for the Vision laid out in the fiscal year 2005 budget request was prepared based on underlying assumptions. How have these assumptions changed? What is the impact of any changed assumptions on NASA's funding needs?

Answer. As communicated in its September 2005 Operating Plan Update, NASA has concluded the Exploration Systems Architecture Study (ESAS) to implement the Vision for Space Exploration. Based on ESAS recommendations, NASA has laid out a detailed plan to support sustained human and robotic lunar exploration operations. This plan features accelerated development of the Crew Exploration Vehicle (CEV) and Crew Launch Vehicle (CLV) systems for missions to the International Space Station, Moon, and Mars, and identifies key technologies required to enable this exploration architecture.

ESAS results are broadly consistent with the assumptions on which the fiscal year 2005 budget request was based. However the specific architecture defined by the ESAS study allows NASA to accelerate CEV and CLV and to further focus and refine ESMD research and technology.

To stay within planned budget guidance for Exploration Systems while accelerating CEV and these launch systems, it is necessary to redirect existing funding for longer-term and lower-priority research and technology (R&T) elements within the Exploration Systems Mission Directorate (ESMD), while focusing on those R&T activities that support the acceleration of the CEV, launch systems, and high-priority, long-lead items.

In the fiscal year 2006 budget amendment, $292 million was identified as moving from R&T activities into Constellation for CEV and CLV acceleration. Following the results of the ESAS, as described above, an additional $493 million is identified from the R&T activities for acceleration of CEV and CLV, as detailed below. This yields a total shift from R&T to Constellation for acceleration in fiscal year 2006 of $785 million, relative to original plans for fiscal year 2006.

Constellation Systems.—NASA plans to accelerate the timeline for flight of the next human flight system by two years, from 2014 to a goal of not later than 2012.

The first flights will be to the International Space Station (ISS), but the primary goal of the CEV is to support exploration efforts, including enabling humans to return to the Moon for weeklong stays as early as 2018, but no later than 2020. Longer-duration human presence on the Moon is targeted for 2022. The changes in the R&T programs will provide funds required to accelerate the design, development, and fabrication of the elements and systems needed to support a return to the Moon on the above timeline.

Human System Research and Technology.—NASA is focusing HSRT funding on program elements that mature technologies needed to support ISS access and lunar sortie missions, while reducing program elements targeting longer-term or lower priority needs. As NASA concentrates the use of the Shuttle on ISS assembly, ISS utilization will be deferred.

Exploration Systems Research and Technology.—NASA is realigning projects to support the ESAS recommended architecture requirements. This realignment has resulted in a focused and phased, requirements driven, R&T program in which some projects are curtailed, some are adjusted, and some are added. Ongoing projects are streamlined to deliver Technology Readiness Level 6 capabilities when needed (system preliminary design review) so as to enable the CEV, launch systems, and lunar lander development schedules. Examples of technology projects focused on the near-term include ablative thermal protection and oxygen-methane propulsion for CEV. Additional work is phased in after the first few years for lunar lander propulsion systems and nontoxic power and reaction control for launch vehicles. Finally, funding for technologies, such as in-situ resource utilization (ISRU) and those applicable to lunar surface systems, are phased in only during the out years. Discontinued, descoped or delayed technology projects include nanomaterials, inflatable structures, large-scale solar power, intelligent robotic systems, Mars mission specific technologies, and electric propulsion.

Prometheus Research and Technology.—Program elements have been deferred as a result of the ESAS architecture study. Surface nuclear power systems to support potential long- duration stays on the Moon will not be required until after 2018. Nuclear propulsion will not be required until planning for Mars missions begins in earnest. The result will be a total reformulation in the nuclear program, yielding $76 million in fiscal year 2006 to accelerate development of CEV and CLV. NASA's funding of the DOE's Naval Reactors program, the JIMO mission, and several technology research programs related to electric propulsion will be curtailed.

Question. The fiscal year 2006 budget request contains less than half the percentage increase proposed by President Bush last year. [It was projected to increase by 4.7 percent above fiscal year 2005, but instead is 2.4 percent more when compared with what was appropriated in the fiscal year 2005 regular appropriations bill, or only 1.6 percent more if the $126 million provided by the emergency supplemental for hurricane relief are included.] How would the lower-than expected funding affect execution of the Vision?

Answer. NASA is pleased to have received a 2.4 percent increase in the President's fiscal year 2006 budget request. This is about half the increase that was planned in the fiscal year 2005 budget runout, with the reduction representing NASA's contribution toward overall deficit reduction efforts—a priority for the President.

In his State of the Union Address on February 2, 2005, the President underscored the need to restrain spending in order to sustain our economic prosperity. The fiscal year 2006 budget request includes more than 150 reductions, reforms, and terminations in non-defense discretionary programs, of which 3 affect NASA programs. Overall, NASA's budget is up, growing 2.4 percent in fiscal year 2006 and is projected to continue to climb thereafter at the approximate rate of inflation. This is a significant increase, when compared with other non-defense, non-homeland security funding, which is generally flat or declining.

In comparison with last year's fiscal year 2005 budget projected runout, the fiscal year 2006 budget is about $546 million less. This reduction, contributing to overall deficit reduction, is spread among NASA's Exploration, Science and Aeronautics Mission Directorates, while enabling increased funds for Shuttle Return to Flight requirements. None of the reductions in Science and Aeronautics Programs is directed to Exploration Systems.

With proposed fiscal year 2006 funding levels, NASA is capable of implementing the Vision for Space Exploration and other national priorities. It should be noted that, as a result of the President's fiscal year 2006 budget amendment and NASA's proposed adjustments in the fiscal year 2005 Operating Plan September update, NASA has identified realigned a total of $785 million within planned fiscal year 2006 Exploration Systems funds from Research and Technology efforts to Constellation for acceleration of CEV and CLV relative to original fiscal year 2006 plans.

Question. In your opinion, should NASA be a "single-mission" agency focused on implementing the President's Vision for Space Exploration, or a multi-mission agency as it has been in the past? If you intend to lead NASA as a multi-mission agency, to what extent is the budget you are requesting for fiscal year 2006–2010 sufficient to accomplish that objective?

Answer. NASA is and should remain a multi-mission agency. Over the past year, NASA has made great strides in meeting national priorities in its missions not directly connected to milestones in the President's Vision for Space Exploration:

—*Earth Science*.—We have completed deployment of the Earth Observing System and are supporting investments in the Global Change Science and Technology Program and the next generation Earth observing satellites for numerous applications, including improved weather forecasts, earthquake prediction, resource management, and other hazard warnings.

—*Aeronautics*.—We are re-establishing NASA's dedication to mastery of core competencies in subsonic, supersonic and hypersonic flight, along with aviation safety, and airspace systems. NASA, with its industry partners, recently demonstrated the feasibility of significantly reducing the sonic boom from supersonic aircraft, and, last November, NASA's hypersonic X–43A demonstrated that an air-breathing engine can fly at nearly 10 times the speed of sound.

—*Exploring our Solar System and the Universe*.—The Mars rovers, Spirit and Opportunity, have exceeded all expectations and made unprecedented discoveries that will help prepare for eventual human exploration; the Cassini/Huygens mission is providing stunning views of Saturn and Titan; the Genesis mission, despite its hard landing, has returned primordial samples from space; new missions have been launched to Mercury and to comets; and amazing discoveries continue with Hubble, Chandra, and Spitzer.

NASA's fiscal year 2006 budget request provides a balanced portfolio of programs to meet the needs of our national priorities in space and aeronautics.

—The fiscal year 2006 budget request of $5.5 billion for the Science Mission Directorate will support 55 missions in orbit, 26 in development and 34 in design phase. By 2010, the Science budget will increase by 23 percent over current levels. NASA will continue to expand its exploration reach with an armada of existing and new space observatories operating in many different wavelengths and looking at different parts of our exotic universe. The three "Great Observatories"—Hubble, Spitzer, and Chandra—will continue to bring wondrous images to our eyes and exciting new scientific discoveries. Missions such as Kepler will provide a new understanding and knowledge of the planets orbiting stars far from our solar system.

—NASA's fiscal year 2006 request for the Aeronautics Research Mission Directorate is $852 million, a significant portion of the government's overall investment in aeronautics research. To make the most of this investment, NASA's technical expertise and facilities for aeronautics research are becoming more focused and results-oriented. NASA's current aeronautics research is focused on enhancing the public good. NASA is also working to maintain a strong basic aeronautics research program to ensure continued mastery of core competencies in subsonic, supersonic, and hypersonic flight. The results from the basic research, technology development, and demonstrations achieved by NASA's Aeronautics efforts will be transitioned for use by both Government and industry.

—The President's fiscal year 2006 budget amendment, submitted July 15, 2005, continues to reinforce a balanced, multi-mission proposal, allowing NASA to address national priorities in Space Science, Earth Science, and Aeronautics, while maintaining focus on the Vision for Space Exploration outlined by the President in January 2005. The multiyear budget plan is sufficient to accomplish this balanced portfolio. It should be noted that the President's fiscal year 2006 budget amendment accomplished several objectives within the request level, including initial steps to accelerate development of the Crew Exploration Vehicle (CEV) and Crew Launch Vehicle (CLV), while preserving funding for Science and Aeronautics Programs. NASA's fiscal year 2005 Operating Plan September update identifies further reallocation within proposed fiscal year 2006 funding levels for Exploration Systems to support these objectives. It is important to note that NASA has not redirected funding from Science and Aeronautics activities to support exploration activities.

Question. How important is meeting the milestones set out in the President's speech—2008 for a demonstration flight of the Crew Exploration Vehicle, 2008 for the first Vision-related robotic lunar probe, and 2015–2020 for a human return to the Moon? Is there flexibility in the dates so that other NASA activities do not necessarily have to be sacrificed in order to meet them? If there is flexibility in meeting those dates, is there also flexibility in the 2010 date for retiring the shuttle?

Answer. The President's fiscal year 2006 budget request, as amended, provides resources to enable NASA to implement the milestones established in the Vision for Space Exploration. These key milestones include the Shuttle Return-to-Flight, 2008 Lunar Robotic Orbiter, and accelerated development of the Crew Exploration Vehicle (CEV) and Crew Launch Vehicle (CLV), to return Americans to the Moon before 2020. NASA is not prepared to be flexible with respect to the major milestones established for the agency by the President.

It is important to note that NASA has not redirected funding from Science and Aeronautics activities to support exploration activities, either in the fiscal year 2006 budget request as submitted in February 2005, or in the President's fiscal year 2006 budget amendment, submitted to Congress on July 15, 2005. NASA has no plans to reduce funding for other NASA activities to support exploration goals.

In accordance with the President's direction, NASA intends to fly out the Shuttle program in an orderly, safe, and disciplined fashion, with retirement not later than 2010.

Question. Please clarify what your plans are for personnel cutbacks over the next year and a half. How many full time equivalents (FTEs) does NASA employ today, and how many will have to leave the agency, voluntarily or involuntarily, by the beginning of fiscal year 2007? What is the breakdown of those personnel cuts by center and by discipline?

Answer. NASA's fiscal year 2005 actual FTE (Full Time Equivalents) including the NASA Inspector General's office, was 18,807. As of early October 2005, the current rate is 18,630.

NASA is implementing the Vision for Space Exploration. In doing so, we are implementing an orderly retirement of the Space Shuttle by 2010, defining the architecture for space exploration, and accelerating the development of the new exploration vehicles and associated launch and support systems. We are continuing to work on the International Space Station, fulfilling our commitments to our partner countries. We are establishing an aeronautics program focused on technological advanced in cutting-edge areas of research and development. In addition, we are retaining a robust science portfolio.

These activities require a balanced workforce skill mix and productive NASA Centers to complete the work over several years. We are in the process of developing plans to reshape our workforce and capital asset portfolio to ensure that we can meet our goals. In the short term, however, we have an imbalance of skills at the Centers because we have not yet fully matched up the new and revised work with the existing workforce.

We have already taken several actions to reduce the uncovered capacity at the Centers, including two early retirement/buyout programs which resulted in approximately 650 employees retiring or resigning from the Agency. In addition, job fairs were held at NASA Centers, which resulted in 119 jobs offers and 95 placements. While these actions have helped reduce the extent of the problem, a significant imbalance still exists. As of early October 2005, the following uncovered capacity existed.

Center	Uncovered Capacity
ARC	246
GRC	268
LaRC	181
MSFC	226
Total	921

In August 2005, the senior leadership at NASA initiated an aggressive plan to reduce the uncovered capacity for fiscal year 2006 and fiscal year 2007, with the ultimate goal of avoiding or minimizing the need for a Reduction in Force (RIF) in fiscal year 2007. Targets numbers were established for each NASA Center to either identify program work within their Center for their own uncovered personnel or identify work packages from existing or newly-assigned programs that other Centers can perform. The goal is to assign work equitably to maintain a reasonable balance among 10 healthy NASA Centers. A team of representatives from all NASA Centers and Mission Directorates are working together to identify the competencies available at the Centers and the work packages available for placement. Work packages will be transferred as soon as possible, with a goal of completing the action no later than June 2006. At that time, an assessment will be performed to determine the remaining uncovered capacity and the likelihood of NASA needing those com-

petencies in the near future. For those competencies that will not be needed, RIF proceedings will be initiated, with a targeted implementation date in fiscal year 2007.

By identifying required skills and working collaboratively to match those skills with funded work, NASA intends to retain the expertise we'll need to achieve the Vision for Space Exploration.

Question. What is NASA's total estimated cost to develop and implement IFMP?

Answer. Development and implementation of IFMP (now Integrated Enterprise Management Program) will be completed in fiscal year 2008. Investment through that time will be $662.6 million.

AERONAUTICS

Question. NASA's requested budget for aeronautics in fiscal year 2006 is $852 million, a reduction from $906 million this year. Further reductions are projected for fiscal year 2007. According to the program, this will mean the elimination of about 1,100 jobs at NASA centers. Since coming on board as NASA Administrator, have you reexamined these proposals? Do you anticipate modifying them at all?

How does NASA reconcile the National Institute of Aerospace's call for increased funding with NASA's funding stream which can only be interpreted as de-emphasizing aeronautics research and development? To what extent is NASA using the NIA report in its planning for future aeronautics research investment?

Answer. NASA is using the NIA report, along with the Congressionally directed Joint Program and Development Office report on the Next Generation Air Transportation System, the report of the Congressionally-chartered Commission on the Future of the U.S. Aerospace Industry, past reviews by the National Research Council, and the newly formed Decadal Survey of Civil Aeronautics, to contribute to identification of potential opportunities for additional research and establishment of priorities for aeronautics programs and projects. NASA agrees with the national needs and critical aviation technology sectors called out in the NIA report. We are beginning to address the technological needs listed in the NIA report by initiating a national dialogue within the Executive Branch and the Congress about the future of aeronautics research and the role of the Federal government in this research arena. In addition, H.R. 2862, the fiscal year 2006 Science, State, Justice, Commerce, and Related Agencies appropriations bill calls upon the President to develop a comprehensive, national aeronautics policy similar to the one we now have for space exploration. In a Statement of Administration Policy regarding H.R. 2862, the Administration endorsed the Committee's call for the development of a national aeronautics policy. While the NIA report makes several significant and useful recommendations, the doubling of the aeronautics budget will not be possible to achieve within projected funding levels for NASA. Rather, NASA must ensure that our current investments in aeronautics research and technology are prioritized and effective.

The Agency is addressing its workforce and institutional issues with two teams. The NASA Workforce Transition Review team is focusing on identification of additional work the Agency needs done in the near future that both contributes to the Agency's mission agenda and which could be directly assigned to NASA Centers. The Systems Engineering and Institutional Transitions Team (SEITT) is conducting a long-term study focused on the institutional requirements needed to ensure the Agency's goals are met with minimum cost, maximum reliability, and measurable high performance. NASA is attempting to identify additional activities from other Agency programs, such as Exploration Systems, to assign to Agency Research Centers, but it remains unclear whether this will totally resolve projected "uncovered capacity" within the Agency workforce by the end of fiscal year 2006.

As NASA Administrator, I am working to the best of my abilities to resolve these workforce issues, and I will continue to work with the Congress to resolve them.

SCIENCE

Question. Funding constraints are forcing difficult choices in NASA's Science programs. What process or processes, and criteria, do you use to prioritize among your space and earth science programs that are in planning or development? For example, the National Research Council prepares decadal strategies that prioritize within particular disciplines (planetary exploration, astrophysics, etc.), but what mechanism and criteria does NASA use to prioritize across disciplines? Similarly, how do you determine which existing probes—such as Voyager—should be turned off because they are past their design lifetimes, even though they continue to return useful data? What is the status of your decision-making on whether or not to turn off Voyager?

Answer. NASA works to maintain a balanced portfolio of investment over time among the several disciplines in the Earth and Space Sciences. We start from the baseline of existing programs and most recent strategic plans, and update them based on recent progress, Presidential initiatives, and science community advice. As you point out, the NRC decadal surveys are very useful in prioritizing within major disciplines. In any given period, choices among programs in different disciplines can be driven by recent scientific discovery, technology readiness, or partnership opportunities that can leverage NASA's investment. A chief factor is "science value"—the anticipated scientific return per dollar investment—though that is not always readily estimable. Over the longer term, portfolio balance is maintained as we listen to our stakeholders in the science community and the Executive and Legislative branches of government.

Regarding extension or termination of existing probes and satellites that have fulfilled their prime missions, NASA also relies heavily on science value as determined by independent scientific peer review. Those nearing or beyond their prime mission (the period of operation proposed when selected) are subjected to a Senior Review Process. In this process, mission science teams are required to submit a proposal describing what science they propose to accomplish via continued operation, and at what cost. An independent panel of external scientists reviews, evaluates, and scores the proposals on their merits. NASA uses this ranking in deciding which missions to operate and for how long, given the funds available.

There are currently 12 operating missions funded within the Earth-Sun System division of NASA's Science Mission Directorate that have fulfilled their primary mission and are in the extended mission phase, including Voyager 1 and 2. Additional funding is identified in the President's fiscal year 2006 budget amendment to maintain continued operation of the fleet of spacecraft conducting space and solar physics missions pending decisions on scientific priorities to be made once NASA receives input from both the Sun-Earth Connection and Earth System Science Senior Review Panels. These Panels, composed of external and independent senior researchers with relevant knowledge and experience, meet periodically to review proposals for innovative research, accomplished with existing space assets. NASA will permit the Sun-Earth Connection missions to operate while the Senior Review process provides for a new assessment of the future scientific value of these operating missions. At the conclusion of the Panels' deliberations, NASA will use their assessment and findings to develop Agency decisions regarding the continued operation of these missions.

Question. The National Research Council recently issued an interim report on NASA's Earth Science program, saying that it is "at risk," citing reduced funding levels for Earth Science projects following the announcement of the Vision for Space Exploration. What is your reaction to that report?

Answer. While funding for Earth science declined in the fiscal year 2005 budget request, the Earth science budget was largely protected from further reduction in the fiscal year 2006 request. The President's fiscal year 2006 budget amendment reallocates funding within the Science Mission Directorate to focus resources on near-term requirements while deferring investments in longer-term activities. Specifically, the Earth-Sun Theme is increased by $88.3 million to fully fund a standalone Glory mission, provide additional funding for extending the missions of currently operating satellites, and maintain the launch schedule for the Solar Dynamics Observatory. To the extent possible, we will address some concerns raised in their interim report in the fiscal year 2007 budget process. We look forward to receiving the NRC's decadal survey report for Earth science (expected around the end of next year), which will help guide NASA's future investments in Earth science and observation.

Question. The fiscal year 2006 budget request and its projections through 2010 assume a cut of about $1 billion to programs within the new Science Mission Directorate compared with the fiscal year 2005 budget projections. How much of that $1 billion cut was taken from programs previously under the former Office of Space Science versus those in the former Office of Earth Science?

Answer. Given past budget reductions to former Office of Earth Science programs, the Science Mission Directorate protected these programs from further reductions in the fiscal year 2006 budget request. As a result, the vast majority of reductions contained within the fiscal year 2006 budget request for the Science Mission Directorate came from planned growth in programs previously part of the Office of Space Science. Of the reductions in the Earth-Sun System Theme, only the Earth System Science Pathfinder (ESSP) program and Glory reductions affected programs from the former Earth Science Enterprise. It is important to note that the reduction to ESSP was used to offset a budget increase for the Hydros mission. The fiscal year 2006 budget request has since been amended to increase funding for the Earth-Sun System Theme by $88.3 million to fully fund a standalone Glory mission, provide

additional funding for extending the missions of currently operating satellites, and maintain the launch schedule for the Solar Dynamics Observatory. All reductions in the fiscal year 2006 budget amendment in the Solar System Exploration and Universe division budgets were taken from former Office of Space Science programs.

Question. What is the status of planning to send a probe to further study Jupiter's moon Europa? NASA proposed a Europa mission in fiscal year 2002, but replaced it a year later with the Jupiter Icy Moons Orbiter (JIMO). Now JIMO has been indefinitely deferred. Does the planetary science community still have a Europa mission at the top of its list for the next large-class planetary mission? If so, when do you expect to launch such a probe?

Answer. The 2003 National Research Council decadal survey report entitled, "New Frontiers in Solar System Exploration: An Integrated Exploration Strategy," identified a Europa mission as the top priority flagship-class mission (those missions costing $650 million or more). NASA recognizes the priority the scientific community places on the science returned from the Europa mission. Therefore, we are continuing to examine the technological challenges and our mission options for such a probe.

Question. You have stated that once the shuttle returns safely to flight, you will reexamine the option of a shuttle mission to service the Hubble space telescope. What has changed since your predecessor's decision that safety considerations preclude using the shuttle to service Hubble?

Answer. Based on analysis of the relative risks immediately following the loss of *Columbia*, NASA decided not to proceed with a Shuttle servicing mission. NASA's decision not to service the Hubble was a very difficult one, given the Hubble's record of spectacular successes. That decision was made at a time when significant uncertainty remained, regarding the technical solutions and risks associated with return to flight. After the two successful Space shuttle flights needed to achieve our return to flight objectives, NASA will have learned a great deal more regarding the risks and operations of the vehicle than was known when the previous decision was made. The Administrator has committed to reassess the earlier decision, after return to flight, based on the relative risks to the Space Shuttle as well as our efforts to preserve the option for a Shuttle servicing mission for Hubble in advance of that decision. He has further indicated that he will make a decision regarding a Shuttle servicing mission for Hubble following the second successful Return to Flight mission. In the interim, the Agency has funded the option for a Hubble servicing mission in the fiscal year 2005 Operating Plan at $291 million. In addition, $30 million has been included in the President's fiscal year 2006 budget amendment to continue to preserve the option for a Hubble servicing mission, pending the second return to flight mission of the Space Shuttle. NASA will keep the Committee informed of our efforts and conclusions in this regard.

Question. Is the option of servicing Hubble robotically now completely off the table? What is the last date at which a decision could be made to service Hubble robotically? What have we learned from the work that was done on this option?

Answer. Based on analysis of the relative risks immediately following the loss of *Columbia*, NASA decided not to proceed with a Shuttle servicing mission (the previously planned Servicing Mission 4, or SM–4). That decision was made at a time when significant uncertainty remained regarding the technical solutions and risks with Return to Flight. In response to Congressional direction, NASA tasked the National Academy of Sciences (NAS) to examine all reasonable options for extending the lifetime of the HST. The NAS concluded that it was "highly unlikely that NASA will be able to extend the science life of [Hubble] through robotic servicing," and recommended that "[a] robotic mission approach should be pursued only to de-orbit Hubble." Consistent with the conclusions of the NAS study, NASA discontinued the robotic servicing effort this past spring.

In the future, however, robotic concepts for an eventual de-orbit mission for HST may be considered, and, in the meantime, much of the work done for the robotic servicing concept is being used in developing new capabilities needed for the Exploration Vision as well as other advanced robotics concepts. The Agency believes that an aggressive use of robotics in the Exploration Vision is required to execute many of the elements of that program.

Question. If NASA proceeds with a Hubble servicing mission, and it is successful, how much longer will Hubble operate? What will be the annual operating costs for extending Hubble's lifetime? What impact will these additional costs have on other NASA astronomy programs? At the end of Hubble's extended lifetime, should we anticipate calls for yet another extension?

Answer. The expected (design) life of the equipment planned for the potential SM–4 is 5 years. That said the design of the HST and its hardware is robust and redundant. The Agency has not done an extensive analysis of the potential lifetime of the

HST after servicing, but the prime mechanism for the end of science is loss of the fine pointing gyroscopes. With new batteries, gyros, and science instruments installed on SM–4, and the improved operational concepts developed as part of the ongoing life extension program, it is reasonable to expect that the system as a whole will be producing quality science for up to 7 years after servicing.

The cost of operations of the HST after servicing depends on several variables, including the amount of overlap with other programs using the Space Telescope Science Institute (STScI) and the outcome of negotiations with the contracted management organization. It is expected that it will cost less to operate the HST in the future if there are no subsequent servicing missions.

Existing operational missions should not be impacted by additional years of operations of the HST. At present, we have budgeted sufficient funds to operate the telescope until the end of our present budget cycle. The greatest impact to Space Science has been and continues to be the additional costs driven by the delay in SM–4 due to the Shuttle accident and NASA's goal to demonstrate two successful Shuttle Return to Flight missions before proceeding with a Hubble servicing mission.

After SM–4, any future required servicing, if desired, to further extend the life of HST, would be after the retirement of the Shuttle fleet.

EXPLORATION

Question. The fiscal year 2006 budget request indicates that NASA plans to spend through fiscal year 2010 over $10 billion on the Earth Orbit Capability (Spiral 1) program to develop, demonstrate and deploy the capability to safely transport a crew to and from earth orbit, by 2014, in preparation for future missions to the moon. The five-year forecast in your fiscal year 2006 request shows steep increases in anticipated funding needs for the Spiral 1 program in fiscal years 2009 and 2010. What is a reasonable timeframe in which we could expect you to share the total cost of the Spiral 1 program and future Spirals with the Congress?

Answer. Exploration Systems is no longer using the term "Spiral" to categorize its development process. The initial capability developed by the Constellation Program will be transportation of crew and supplies to the International Space Station in low-Earth orbit.

As part of its Exploration Systems Architecture Study, the Agency has completed preliminary cost estimates for the new Exploration architecture. NASA has briefed Committee staff on these estimates and the methodology followed to arrive at them.

Question. You said last year that the issue wasn't whether there was enough money allocated to the Vision, but "why we are expecting so little for the money which has been allocated?" How, specifically, will you get more "bang for the buck" as you execute the Vision?

Answer. In order to provide the maximum return for the taxpayer's investment, NASA must make priority decisions within the exploration program by focusing on those activities that are best able to produce significant results, and by ensuring that individual programs complement each other.

In September, NASA promulgated an integrated exploration architecture derived from the Vision for Space Exploration that specifies the capabilities necessary for future exploration activities. Based on that architecture, clear priorities have been established to focus NASA efforts on those development activities designed to provide the greatest return to the taxpayer. Teams have been established to assess how to best utilize our resources and workforce to ensure that we get the most "bang for the buck." Funds have already been redirected from projects that do not need immediate funding (such as Project Prometheus) towards those that do (e.g., the CEV). Additional cost savings and efficiencies will be realized through a careful, focused transition between Shuttle infrastructure and new exploration capabilities. These new capabilities will create new opportunities for exploration, discovery and understanding.

Question. NASA has announced that it will accelerate its plans for the Crew Exploration Vehicle. Given this maiden flight was not to have occurred until 2014, where do you anticipate the associated funding will come from and which NASA programs will be impacted as the result of advancing the development of the CEV? What steps would you take to ensure that accelerating the program would not lead to excessive cost growth and/or technical risk?

Answer. The capability to accelerate the development of the CEV will be driven by development schedules, test schedules, safety considerations, and funding. These were areas of interest for the Exploration Systems Architecture Study (ESAS).

To stay within planned budget guidance for Exploration Systems while accelerating CEV and these launch systems, it is necessary to redirect existing funding

for longer-term and lower-priority research and technology (R&T) elements within the Exploration Systems Mission Directorate (ESMD), while focusing on those R&T activities that support the acceleration of the CEV, launch systems, and high-priority, long-lead items.

In the fiscal year 2006 budget amendment, $292 million was identified as moving from R&T activities into Constellation for CEV and CLV acceleration.

Constellation Systems.—NASA plans to accelerate the timeline for flight of the next human flight system by two years, from 2014 to a goal of not later than 2012. The first flights will be to the International Space Station (ISS), but the primary goal of the CEV is to support exploration efforts, including enabling humans to return to the Moon for week-long stays as early as 2018, but no later than 2020. Longer-duration human presence on the Moon is targeted for 2022. The changes in the R&T programs will provide funds required to accelerate the design, development, and fabrication of the elements and systems needed to support a return to the Moon on the above timeline.

Human System Research and Technology.—NASA is focusing HSRT funding on program elements that mature technologies needed to support ISS access and lunar sortie missions, while reducing program elements targeting longer-term or lower priority needs. As NASA concentrates the use of the Shuttle on ISS assembly, ISS utilization will be deferred.

Exploration Systems Research and Technology.—NASA is realigning projects to support the ESAS recommended architecture requirements. This realignment has resulted in a focused and phased, requirements driven, R&T program in which some projects are curtailed, some are adjusted, and some are added. Ongoing projects are streamlined to deliver Technology Readiness Level 6 capabilities when needed (system preliminary design review) so as to enable the CEV, launch systems, and lunar lander development schedules. Examples of technology projects focused on the near-term include ablative thermal protection and oxygen-methane propulsion for CEV. Additional work is phased in after the first few years for lunar lander propulsion systems and non-toxic power and reaction control for launch vehicles. Finally, funding for technologies, such as in situ resource utilization (ISRU) and those applicable to lunar surface systems, are phased in only during the out years. Discontinued, descoped or delayed technology projects include nanomaterials, inflatable structures, large-scale solar power, intelligent robotic systems, Mars mission specific technologies, and electric propulsion. Transitional action is being taken in fiscal year 2005 to discontinue plans for 80 tasks and activities, previously planned at $206 million in fiscal year 2006, which do not directly support ESAS architecture or schedule requirements. These actions will yield $174 million in fiscal year 2006 that will be applied towards accelerated development of CEV and CLV.

Prometheus Research and Technology.—Program elements have been deferred as a result of the ESAS architecture study. Surface nuclear power systems to support potential long-duration stays on the Moon will not be required until after 2018. Nuclear propulsion will not be required until planning for Mars missions begins in earnest. The result will be a total reformulation in the nuclear program, yielding $76 million in fiscal year 2006 to accelerate development of CEV and CLV. NASA's funding of the DOE's Naval Reactors program, the JIMO mission, and several technology research programs related to electric propulsion will be curtailed.

Further, in order to reduce cost and technical risks, ESMD and Constellation Systems are currently investigating innovative approaches to software development, early incorporation of operational expertise into the program, a lean program and theme office, and a robust oversight role for the theme and program.

Question. Generally speaking, do you anticipate that the decision to merge the EELV programs will save money for the government, and specifically for NASA? If so, how will it save money, and how much?

Answer. The Department of Defense is in the best position to evaluate impacts to EELV due to changes in the program structure. Nonetheless, NASA is an important customer for EELV and we are very interested in potential efficiencies that could reduce our costs over the long run.

We have been following the initiative to consolidate elements of the individual EELV programs into common, integrated activities under the proposed "United Launch Alliance (ULA)." We understand that this initiative could drive economies of scale and allow us to reduce the individual "standing armies" that contribute to fixed costs for each of the EELV programs. This approach holds some potential for significant cost savings and we look forward to benefiting from them if and when they occur. However, we have not evaluated the ULA proposals in enough detail to quantify any potential cost savings.

Question. Considering the large amount of information that we have from the Apollo program, and the number of lunar probes being launched by other countries,

why does NASA plan to launch lunar probes of its own prior to a human return to the Moon? Please explain what these probes will be doing that is crucial to accomplishing the President's goal. What is the status of planning for these lunar probes?

Answer. NASA intends to launch lunar probes—including orbiters and lenders—in order to prepare for extended human presence on the Moon. As a synergistic benefit, NASA also expects to contribute to the advancement of scientific knowledge of the Moon, which in turn will advance our understanding of our own planet's evolution.

As noted in the question, other countries are also launching probes to the Moon. NASA expects to take full advantage of the knowledge gained from those probes. However, there are more questions NASA must answer to meet the lofty goals of the Vision for Space Exploration. NASA probes will focus on filling gaps in knowledge needed to ensure the safety of future human missions to the Moon. They will address specific questions related to human exploration of the Moon, and demonstrate key technologies required for future human missions. The programs are designed to avoid unnecessary redundancy and take full advantage of the results from other probes.

For example, NASA is planning a Lunar Reconnaissance Orbiter (LRO) launch in 2008, which will provide a much higher fidelity map of a larger portion of the lunar surface, especially the poles, than is offered by any other probe. Such a map is critical for selecting future sites for human landing. LRO instruments will also provide information to help NASA protect our astronauts from the Moon's radiation environment and to identify likely sources of water.

Shortly after the LRO mission, NASA plans to send a lander to the Moon. This lander will help demonstrate precision navigation techniques that will be important for positioning humans on the exact lunar landing site of choice. It will conduct a more detailed survey of a potential human landing site and confirm the existence and composition of resources that can support an extended human presence. Eventually, lenders may demonstrate capabilities needed for extended human presence, such as the ability to convert lunar water into hydrogen and oxygen for life support and propulsion.

In summary, NASA's lunar probes are intended to meet the needs of the Vision for Space Exploration. Other probes complement planned NASA lunar probes. We design our probes to provide additional knowledge critical to ensuring future successful human missions to the lunar surface.

SPACE OPERATIONS: THE INTERNATIONAL SPACE STATION (ISS) AND THE SPACE SHUTTLE

Question. What is your current cost estimate for returning the space shuttle to flight status—for fiscal year 2005 and fiscal year 2006, specifically, and the total cost (fiscal year 2003–2009)?

Answer. NASA's estimate for Space Shuttle Return to Flight (RTF) costs from fiscal year 2003 through the end of fiscal year 2006 is just over $1.4 billion. Overall, Return to Flight costs are stabilizing as technical solutions have reached maturity and implementation of solutions nears completion. The estimates provided in the latest Implementation Plan for Space Shuttle Return to Flight and Beyond, dated June 3, 2005 (attached), remain valid and have not substantially changed since November 2004. Management tools are in use to monitor progress and provide early warning of potential problems. However, the potential exists for additional content that may be required in the post-Return to Flight time frame depending on the ongoing work addressing issues seen during STS–114 and the results of the Shuttle's performance on the second Return to Flight mission, STS–121.

Current estimates for RTF costs are: Fiscal year 2003—$42 million; fiscal year 2004—$496 million; fiscal year 2005—$602 million; and fiscal year 2006—$288 million.

If there are any increases in Return to Flight costs, NASA is committed to accommodating them within its total budget request.

Actual costs to date are tracking very closely with the November 2004 estimate provided to Congress. The total estimated cost for returning the Shuttle to flight status through fiscal year 2009 is approximately $1.98 billion. The outwear costs are associated with added manpower for Systems Engineering. NASA's plan and our budget reflect the end of RTF after the second RTF mission and subsequent post-flight assessment actions. These milestones will take the Agency through most of fiscal year 2006. RTF, from a budget perspective, will end in fiscal year 2006, and will no longer be tracked as a separate effort, beginning in fiscal year 2007.

IMPLEMENTATION PLAN FOR SPACE SHUTTLE RETURN TO FLIGHT AND BEYOND

RETURN TO FLIGHT COST SUMMARY

Proposed Program solutions for all return to flight (RTF) actions are reviewed by the Space Shuttle Program Requirements Control Board (PRCB) before receiving final NASA implementation approval. The PRCB has responsibility to direct studies of identified problems, formulate alternative solutions, select the best solution, and develop overall cost estimates. The membership of the PRCB includes the Space Shuttle Program Manager, Deputy Manager, all Project and Element Managers, Safety and Mission Assurance personnel, and Management Integration and Planning Office. This process applies to solutions to the *Columbia* Accident Investigation Board (CAIB) recommendations as well as to the Space Shuttle Program (SSP) corrective actions.

In the process of down-selecting to two or three "best options," the projects and elements approve funding to conduct tests, perform analysis, develop prototype hardware and flight techniques, and/or obtain contractor technical expertise that is outside the scope of existing contracts.

The Space Flight Leadership Council (SFLC) is regularly briefed on the overall activities and progress associated with RTF and becomes directly involved when the SSP is ready to recommend a comprehensive solution to a CAIB recommendation or an SSP corrective action. The SFLC receives a technical discussion of the solution as well as an assessment of cost and schedule. With the concurrence of the SFLC, the SSP then receives the authority to proceed. The membership of the SFLC includes the Associate Administrator for the Office of Space Operations, Associate Deputy Administrator for Technical Programs, Deputy Associate Administrator for ISS [International Space Station] and SSP, Associate Administrator for Safety and Mission Assurance, Space Shuttle Program Manager, and the Office of Space Operations Center Directors (at Johnson Space Center, Kennedy Space Center, Marshall Space Flight Center, and Stennis Space Center).

All recommended solutions are further reviewed, for both technical merit and to determine whether the solution responds to the action, by the Return to Flight Task Group (also known as the Stafford-Covey Task Group).

Processes established by NASA to estimate and capture all costs related to RTF have steadily improved the accuracy of Agency budget forecasts. As the technical plan for RTF has matured, so the cost estimates have matured. NASA incurred costs in fiscal year 2003, valued at $42 million, to initiate RTF actions based on preliminary CAIB recommendations. Since November 2003, additional corrective actions have been initiated, in accordance with the process described above and based on the final CAIB Report recommendations and internal SSP actions.

During fiscal year 2004, RTF activities moved rapidly from planning to execution, with several key option "downselect" decisions being made by the end of the year. The July 2004 RTF cost estimate is considered the first credible Agency projection because it was based on a more mature technical plan. NASA estimated that RTF activities in fiscal year 2004 would cost about $465 million. By the end of the year, the actual costs totaled $496 million. The costs incurred included work carried over from fiscal year 2003 as well as late-year changes in fiscal year 2004 technical content.

The value of RTF activities for fiscal year 2005 is estimated at $602 million, of which $413 million have been approved through the PRCB. Of the remaining $189 million, $73 million represent the estimated value of work review by the control board, but with additional technical effort required before a directive is released, and $116 million is the value of activities that are still in technical definition. As NASA gains actual flight experience, the estimates for fiscal year 2005 and fiscal year 2006 will be adjusted and the changes will be reported to Congress as soon as they are fully assessed.

Fiscal year 2006 is planned to be a transition year for the Shuttle Program. RTF technical content that must be sustained for the Program's remaining service life, along with the workforce required to continue safe flight, will be absorbed into the Program's baseline. Therefore, at the end of fiscal year 2006, RTF costs will no longer be budgeted or reported separately.

Excluded from the cost estimates provided below are other RTF-related funding requirements resulting from a complete evaluation of *Columbia* accident impacts across the Program, such as replacement of hardware (e.g., cargo integration, Orbiter pressure tanks). Several solutions to improve NASA's culture and some of the Program's actions detailed in "Raising the Bar—Other Corrective Actions" are integrated into existing processes and do not always require additional funding.

TABLE 1.—RETURN TO FLIGHT BUDGET ESTIMATES/IMPLEMENTATION PLAN MAP FOR NEW ESTIMATES INCLUDING THREATS [1]

[Dollars in millions]

		Fiscal year—				Recommendation Numbers Map to Implementation Plan																				
						CAIB #																				SSP Rec-ommen-dation
		2003	2004	2005	2006	3.2–1	3.3–1	3.3–2	3.3–3	3.3–4	3.3–5	3.4–1	3.4–2	3.4–3	3.8–1	4.2–1	4.2–2	4.2–3	6.2–1	6.4–1	7.5–1	7.5–2	7.5–3	9.1–1	9.2–1	
([2])	Total Initiated SSP RTF Activities	42	496	602	288	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RE/RP	Orbiter RCC Inspections and Orbiter RCC–2 Shipsets Spares	.....	39	41	5	.....	X	X	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	.....	X	.....	.....	.....	.....	.....	.....
RE/RP	On-orbit TPS Inspection and EVA Tile Repair	20	71	167	49	.....	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	.....	.....	X
	Orbiter Workforce	.....	.....	38	46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	X	.....	.....	X
RE/RP	Orbiter TPS Hardening	.....	29	1	.....	.....	.....	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Orbiter/GFE	.....	8	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RE	Orbiter Contingency	.....	8	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
RE/RP	Orbiter Certification/Verification	.....	47	9	.....	.....	X	.....	X	X	.....	.....	.....	.....	.....	.....	X	.....	X	.....	.....	.....	.....	.....	X	X
RE/RP	External Tank Items (Camera, Bipod Ramp, etc.)	10	93	88	14	X	.....	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	X	.....	.....	.....	.....	.....	.....	.....	.....
RE/RP	SRB Items (Bolt Catcher, ETA Ring Invest., Camera)	1	14	4	.....	.....	.....	.....	.....	X	.....	.....	.....	X	.....	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	X
RE/RP	Ground Camera Ascent Imagery Upgrade	8	40	13	11	.....	.....	.....	.....	.....	.....	X	.....	.....	.....	.....	X	X	.....	X	.....	.....	.....	.....	.....	.....
	KSC Ground Operations Workforce	.....	15	38	42	.....	.....	.....	.....	.....	X	.....	.....	.....	.....	.....	X	X	.....	X	.....	.....	.....	.....	.....	X
RE/RP/AC	Other (System Intgr. JBOSC Sys. Full Cost, Additional FTEs, etc.)	4	132	178	121	.....	X	X	X	X	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	X	X	X	X	.....	X
RE/RP	Stafford-Covey Team	([3])	[4] 1	[5] 4	([6])	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	X
	Other RTF Related: NASA Engineering and Safety Center (NESC) [7]	.....	45	77	79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	X	X	X	.....	.....

RE = Reestimated Item; RP = Rephased; AC = Added Content.

[1] These estimates could change due to improved estimates, additional tasks, and added scope as we better understand the implementation of RTF recommendations.

[2] This update includes added scope of work and improved estimates. RTF costs are stabilizing as technical solutions reach maturity. The Congress will be kept informed as we refine these requirements and associated cost estimates.

[3] NASA assumed an estimate of $94 million in budget authority for fiscal year 2003 of which $52 million of fiscal year 2003 planned work and associated cost were carried into fiscal year 2004.

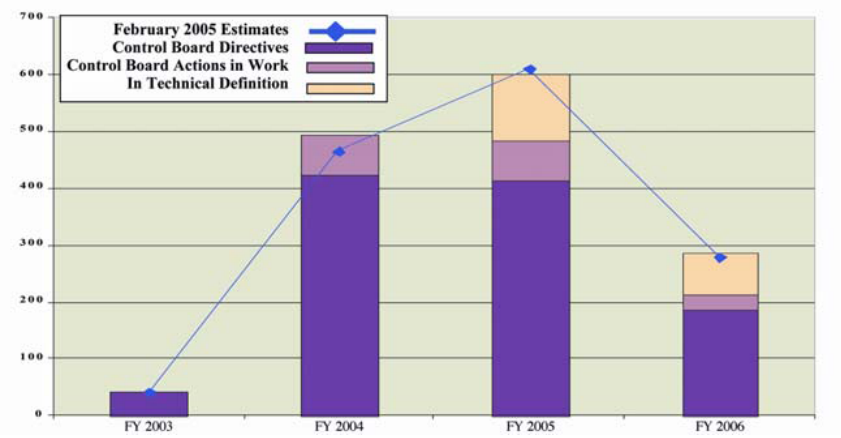
[4] The fiscal year 2004 RTF cost estimate of $496 million includes $423 million of activities that have been approved for implementation. The remaining $73 million of RTF activities are pending approval. As soon as these additional activities are definitized, they will be shared with Congress.

[5] The fiscal year 2005 RTF cost estimate of $602 million includes $413 million of activities that have been approved for implementation. Of the remaining $189 million potential, $73 million is in work and $116 million of activities are in technical definition. As soon as these additional activities are definitized, they will be shared with Congress.

[6] The fiscal year 2006 RTF cost estimate of $288 million includes $188 million of activities that have been approved for implementation. Of the remaining $100 million potential activities, $26 million is in work and $74 million of activities are in technical definition. As soon as these additional activities are definitized, they will be shared with Congress.

[7] The NASA Engineering and Safety Center (NESC) is funded through NASA's Corporate G&A. The NESC at NASA's Langley Research Center in Hampton, VA, provides comprehensive examination of all NASA programs and projects. The Center thus provides a central location to coordinate and conduct robust engineering and safety assessment across the entire Agency.

CHART 1.—FEBRUARY 2005 RTC/CAIB ESTIMATES



	Fiscal year—			
	2003	2004	2005	2006
Estimates Published in July 2004	42	465	643	331
Value of Control Board Directives Issues	42	423	413	188
Estimates for Control Board Actions Work	.....	73	73	26
Estimates for Activities Still in Technical Definition	.....	.....	116	74
Total Board Actions/Pending Board Actions	42	496	602	288

TABLE 2.—FEBRUARY 2005 RTF STATUS

	Fiscal year—			
	2003	2004	2005	2006
RTF Activities—Control Board Directive	42	423	413	188
RTF Activities—Been to Control Board/Awaiting	.....	73	73	26
RTF Activities—In Review Process	.....	.....	116	74
TOTAL RTF	42	496	602	288
RTF Activities—Control Board Directive:				
Orbiter RCC Inspections & Orbiter RCC–2 Shipsets Spares	.....	39	22	.....
On-Orbit TPS Inspection & EVA Tile Repair	20	71	151	20
Orbiter Workforce	.....	.....	33	41
Orbiter Hardening	.....	29	1	.....
Orbiter/GFE	.....	7	4	.....
Orbiter Contingency	.....	8	12	.....
Orbiter Certification/Verification	.....	47	.....	.....
External Tank Items (Camera, Bipod Ramp, etc.)	10	42	25	2
SRB Items (Bolt Catcher, Camera)	1	14	4	.....
Ground Camera Ascent Imagery Upgrade	8	40	13	11
KSC Ground Operations Workforce	.....	15	38	42
Other (System Intgr., JBOSC Sys., SSME Tech. Assess, Ground Ops Workforce)	4	110	107	71
Stafford-Covey Team	.....	1	4	.....
Total, RTF Activities—Control Board Directive	42	423	413	188
RTF Activities—Been to Control Board/Awaiting:				
Orbiter RCC Inspections & Orbiter RCC–2 Shipsets Spares	.....	.....	.....	.....

TABLE 2.—FEBRUARY 2005 RTF STATUS—Continued

	Fiscal year—			
	2003	2004	2005	2006
On-Orbit TPS Inspection & EVA Tile Repair			6	8
Orbiter Workforce			5	5
Orbiter Hardening				
Orbiter/GFE				
Orbiter Contingency			5	
Orbiter Certification/Verification				
External Tank Items (Camera, Bipod Ramp, etc.)		51	50	9
SRB Items (Bolt Catcher, Camera)				
Ground Camera Ascent Imagery Upgrade				
KSC Ground Operations Workforce				
Other (System Intgr., JBOSC Sys., SSME Tech. Assess, Ground Ops Workforce)		22	7	4
Total RTF Activities—Been to Control Board/Awaiting		73	73	26
RTF Activities—In Review Process:				
Orbiter RCC Inspections & Orbiter RCC–2 Shipsets Spares			19	5
On-Orbit TPS Inspection & EVA Tile Repair			10	21
Orbiter Workforce				
Orbiter Hardening				
Orbiter/GFE				
Orbiter Contingency				
Orbiter Certification/Verification			9	
External Tank Items (Camera, Bipod Ramp, etc.)			14	3
SRB Items (Bolt Catcher, Camera)				
Ground Camera Ascent Imagery Upgrade				
KSC Ground Operations Workforce				
Other (System Intgr., JBOSC Sys., SSME Tech. Assess, Ground Ops Workforce)			64	46
Total RTF Activities—In Review Process			116	74

Question. You have said that the United States will (1) terminate the space shuttle by 2010, and (2) fulfill our commitments to the partners in the International Space Station (ISS) program. How will that be accomplished, considering that the partners were relying on the availability of the shuttle during the operational phase of the ISS program?

Answer. NASA is currently studying the options, including the utilization of commercial or partner vehicles and acceleration of the Crew Exploration Vehicle, to meet our obligations to our International Partners and to meet our commitment to retire the Shuttle by 2010.

Question. Under what circumstances would you advocate waiver of the Iran Nonproliferation Act?

Answer. Section 6 of the Iran Nonproliferation Act of 2000 (Public Law 106–178) (INA) restricts U.S. Government payments, in cash or in kind, to certain Russian entities for work related to human space flight, including the International Space Station (ISS). Section 6 adversely impacts U.S. interests by limiting/eliminating U.S. human access to space and pursuit of the President's Vision for Space Exploration. Russia has said they will no longer provide critical ISS crew rescue and logistics services and have publicly stated their intention to interrupt Soyuz training for 2006 ISS U.S. astronauts unless they are compensated. The United States is dependent on Russia for Soyuz crew rescue with no other options until the new NASA Crew Exploration Vehicle is available. By April 2006, INA restrictions will prevent the United States from maintaining American crew members on the ISS expect during Space Shuttle visits.

On July 12, 2005, the Administration proposed to Congress an amendment to INA to advance U.S. Government interests by enabling NASA's work and cooperation with the Russian Federal Space Agency to proceed: (1) operationally on the ISS and meet U.S. commitments to International Partners; and (2) programmatically in implementing the Vision for Space Exploration in a manner that maintains the strong commitment of the U.S. Government to nonproliferation. The Administration's proposed amendment took into consideration Congressional concerns voiced to date by

proffering an amendment that retained all nonproliferation elements of INA (Sections 1–5) and made a minimal change to definition in Section 6 which, in effect, removed the prohibition on payments to Russian entities related to most ISS and human space flight activities.

The Senate passed S. 1713, the Iran Nonproliferation Amendments Act of 2005, by unanimous consent on September 19, 2005. As passed, the measure amends INA to a limited degree, allowing NASA to meet near-term ISS operational and programmatic needs, but maintaining the restrictions of the INA for any payments related to human space exploration, and for ISS-related payments, beyond January 1, 2012.

Question. If NASA is unable to get relief from the Act, how do you plan to provide crew rotation/rescue services?

Answer. Assured crew return is an important safety protection under current ISS operational plans. Should the Soyuz vehicle be unavailable at any time in the future, U.S. crews would only be maintained on the ISS while the Space Shuttle or a potential future vehicle capable of serving as a crew rescue vehicle (e.g., the CEV or a commercial crew transfer vehicle) is docked.

Question. What are the potential costs to NASA if you are given the authority to purchase crew rotation/rescue services from Russia?

Answer. Actual costs are subject to negotiations with Russia, but NASA anticipates that the total amount of purchases of crew and cargo services from Russia would fit within the total funds appropriated by Congress for fiscal year 2005 and requested for fiscal year 2006 for the ISS Cargo and Crew Services budget line. [Fiscal year 2005—$98 million; fiscal year 2006—$160 million; fiscal year 2007—$160 million; fiscal year 2008—$160 million; fiscal year 2009—$500 million; and fiscal year 2010—$890 million.] Costs for other services would fit within the total ISS budget.

Question. What decision has been made about whether to continue building the centrifuge? How much has Japan spent on it to date? If NASA decides the centrifuge no longer is needed for ISS, are there alternative uses for it? Will NASA have to reimburse Japan for its costs if the program is canceled? What other termination costs would be associated with a decision to cancel it?

Answer. Pursuant to the NASA-Government of Japan Memorandum of Understanding for the International Space Station (ISS) and an Agreement in Principle for JEM Launch Offset, Japan is developing the U.S. Centrifuge for NASA to partially offset NASA's costs for launching the Japanese Experiment Module, Kibo, to the ISS.

On September 27, 2005, NASA informed officials from the Japan Aerospace Exploration Agency (JAXA) and the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) that the United States had withdrawn its requirements for development and launch of the U.S. Centrifuge Accommodation Module based on a re-prioritization of research requirements with greater focus on research having a direct and near-term benefit to the exploration mission.

NASA has not incurred termination costs and we believe we do not have an obligation to directly reimburse Japan for its costs. Under the arrangements described above, however, NASA is committed to launch the Japanese Experiment Module to the International Space Station in exchange for Japan's provision of the Centrifuge, associated hardware and H–IIA launch services.

Discussions are currently underway between NASA and Japanese officials to discuss the implications of this NASA decision including areas of continuing commitment by both parties.

While the Japanese Government has not provided NASA with the detailed Japanese budget for development of the U.S. Centrifuge, the following information is known:

—In April 2004, the Japan Aerospace Exploration Agency (JAXA) informed NASA that they had contracted $425 million to date for the Centrifuge. JAXA's estimate for total Centrifuge development costs at that time was $692 million.

Question. When will the Administration submit its plan to Congress for coping with the issues posed by the Iran Nonproliferation Act in terms of assuring access to ISS by U.S. astronauts after 2006? What can you tell us today about the strategy the Administration plans to take?

Answer. Section 6 of the Iran Nonproliferation Act of 2000 (Public Law 106–178) (INA) restricts U.S. Government payments, in cash or in kind, to certain Russian entities for work related to human space flight, including the International Space Station (ISS). Section 6 adversely impacts U.S. interests by limiting/eliminating U.S. human access to space and pursuit of the President's Vision for Space Exploration. Russia has said they will no longer provide critical ISS crew rescue and logistics services and have publicly stated their intention to interrupt Soyuz training

for 2006 ISS U.S. astronauts unless they are compensated. The United States is dependent on Russia for Soyuz crew rescue with no other options until the new NASA Crew Exploration Vehicle is available. By April 2006, INA restrictions will prevent the United States from maintaining American crew members on the ISS expect during Space Shuttle visits.

On July 12, 2005, the Administration proposed to Congress an amendment to INA to advance U.S. Government interests by enabling NASA's work and cooperation with the Russian Federal Space Agency to proceed: (1) operationally on the ISS and meet U.S. commitments to International Partners; and (2) programmatically in implementing the Vision for Space Exploration in a manner that maintains the strong commitment of the U.S. Government to nonproliferation. The Administration's proposed amendment took into consideration Congressional concerns voiced to date by proffering an amendment that retained all nonproliferation elements of INA (Sections 1–5) and made a minimal change to definition in Section 6 which, in effect, removed the prohibition on payments to Russian entities related to most ISS and human space flight activities.

The Senate passed S. 1713, the Iran Nonproliferation Amendments Act of 2005, by unanimous consent on September 19, 2005. As passed, the measure amends INA to a limited degree, allowing NASA to meet near-term ISS operational and programmatic needs, but maintaining the restrictions of the INA for any payments related to human space exploration, and for ISS-related payments, beyond January 1, 2012.

Question. How many Shuttle flights are needed to complete construction of the ISS? What is your plan if that number of flights cannot be accomplished by the end of 2010, when the Shuttle program is supposed to be terminated?

Answer. The NASA Administrator commissioned an assessment known as the Shuttle/Station Configuration Options Team (S/SCOT) study to evaluate options for the assembly and utilization of the ISS, taking into account the plan to retire the Space Shuttle by 2010 and honor U.S. commitments to the Space Station International Partners. The assessment also considered that Space Shuttle flight rate planning must account for the limitations of the Shuttle that became apparent after the loss of *Columbia*, namely that NASA's ability to successfully conduct 28 Shuttle flights by 2010 was no longer technically feasible.

The results of the study now have been thoroughly reviewed by the Space Operations Mission Directorate and other NASA offices and the Administrator has approved a plan for discussion with the ISS International Partners. The International Partners were informed of NASA's proposed approach the week of September 26, 2005.

NASA is operating under four key parameters:

—Retiring the Shuttle by the end of fiscal year 2010;

—Developing an achievable and robust Shuttle flight manifest;

—Meeting our International Partner commitments; and

—Completing the Space Station with a sustainable configuration with acceptable vehicle and crew risk.

Each of these parameters brings with it a number of unique considerations and constraints, which were assessed using a series of potential approaches. NASA management together with technical experts from the ISS and Space Shuttle programs developed a plan to optimize the capability of each program.

Key Elements of NASA's Proposed Plan for Space Station

NASA's proposed plan, subject to the normal budget and appropriation process, as well as ongoing return-to-flight considerations, is to fly the Shuttle in a disciplined, measured fashion, targeting 19 Shuttle flights. The 19 flights include 18 flights to the ISS beginning with STS–121, plus a possible additional flight to service the Hubble Space Telescope. The flights to the ISS would provide the infrastructure for the International Partner modules first, followed immediately by the Partner laboratories. Maintenance and logistic flights for sustainability are at the end of the sequence. The order and flight strategy is as important a consideration as the specific number of flights.

The plan includes the launch of key NASA-provided infrastructure elements and other capabilities to enable a potential 6 person crew and meaningful utilization of the ISS. NASA has determined, however, that its exploration research objectives no longer require the Centrifuge Accommodation Module that is being developed for NASA by JAXA under a barter arrangement.

The approach would also accommodate almost all of the International Partner elements currently planned for launch to the ISS, with the notable exceptions of the U.S. Centrifuge and the Russian Solar Power Module. In both cases, NASA is pre-

pared to immediately engage in detailed bilateral discussions to establish a mutually beneficial arrangement to accommodate the proposed change.

The first 13 flights, scheduled to occur over the three years after the Shuttle returns to flight, would not vary significantly from the reference assembly sequence endorsed at the Multilateral Coordination Board and Heads of Agency meetings in Montreal last January.

Question. To what extent does imposing a date certain on ending the shuttle program create schedule pressure similar to that which existed prior to the *Columbia* accident (according to the *Columbia* Accident Investigation Board)?

Answer. The *Columbia* Accident Investigation Board recognized that schedules were a recognized, even unavoidable tool for managing large and complex systems such as the Space Shuttle and International Space Station programs. As such, the *Columbia* accident wasn't caused by schedule pressure per se, but rather by a safety system that had lost much of its independence and had grown too weak to act as an effective check on safety issues in the face of normal schedule factors.

The Vision for Space Exploration outlines an ambitious series of goals, including completing assembly of the International Space Station, retiring of the Space Shuttle Orbiter fleet, and developing the next-generation of crew and cargo vehicles that will support ISS utilization and missions to the Moon, Mars, and beyond. These goals are now supported by a strong, independent, and proactive safety organization, one that has played a key role in returning the Space Shuttle to flight as expeditiously and as safely as possible and that will continue to ensure safe mission execution throughout the rest of the Space Shuttle's operational lifetime.

Question. What are the current plans for the ISS once it has reached the end of its useful life? What is the current plan for de-orbiting, or decommissioning, the ISS?

Answer. There is no current specific plan for de-orbiting or decommissioning the ISS. The budget plans announced in 2004 indicated the completion of essential U.S. exploration research in 2016, and an end of the funding for ISS operations. Some hardware elements of the ISS reach their service life limitations in 2016. Prior to 2016, a determination will be made on the costs of extending the Station's service life and benefits of continuing U.S. ISS operations beyond 2016. Based on that determination, NASA will develop plans to address the potential future involvement of NASA, the U.S. government, International Partners, the private sector, and academic institutions in ISS operations and utilization.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

Question. Dr. Griffin, in the President's new National Space Transportation Policy, you are directed, in coordination with the Secretary of Defense, to recommend an option to meet future heavy lift requirements. This Committee, as well as that chaired by Senator Stevens, is keenly interested in the costs of the preferred option.

—Have your studies progressed far enough to identify the potential most cost effective solution?"

—Is the process of "coordination" with DOD working to your satisfaction?

—What are the implications of the recent news about the Air Force's intention to increase their space presence?

Answer. NASA has conducted a detailed assessment of our launch vehicle requirements, including heavylift requirements and crew launch requirements. We believe those studies have identified highly effective solutions that include cost-effectiveness, schedule, minimization of programmatic risk, mission reliability, and crew safety. Based on all of these factors, NASA and the Department of Defense (DOD) have agreed on a policy for use and development of national launch systems. The attached letter, signed on August 5, 2005, by the NASA Administrator and the DOD Executive Agent for Space, outlines that policy. Specifically, NASA has chosen Shuttle-derived options for its future crew and very heavy cargo lift requirements because of their proven safety and superior cost and schedule availability. Specifically, the Space Shuttle propulsion elements are reliable, human-rated, and best able to fit the available architecture within the available timeframe.

Throughout the process, we have been actively engaged with the DOD, including senior management and staff levels. We have been very encouraged by the constructive dialogue and support at all levels, and believe the process of coordination is working well.

We look forward to continuing our close working relationship with the Air Force. While the Air Force and NASA each has unique and independent roles and responsibilities, it is also true that we benefit from each others investments, experience, and talents.

Question. Dr. Griffin, in your response to questions from my colleagues in other sessions, you stated that it costs about $4.5 billion to own the Shuttle, whether it flies or not. Unlike the post-*Challenger* return to flight efforts, your current continuing extensive efforts are not being funded by a supplemental appropriation. You are trying to execute four major tasks in the human space flight program: return the Shuttle to flight, fly the Shuttle safely until 2010, complete the assembly of the International Space Station, and have a new CEV available in a timeframe consistent with Shuttle retirement. How much money has been spent on return to flight?

Answer. NASA's estimate for Space Shuttle Return to Flight (RTF) costs from fiscal year 2003 through the end of fiscal year 2006 is just over $1.4 billion. Overall, Return to Flight costs are stabilizing as technical solutions have reached maturity and implementation of solutions nears completion. The estimates provided in the latest Implementation Plan for Space Shuttle Return to Flight and Beyond, dated June 3, 2005 (attached), remain valid and have not substantially changed since November 2004. Management tools are in use to monitor progress and provide early warning of potential problems. However, the potential exists for additional content that may be required in the post-Return to Flight timeframe depending on the ongoing work addressing issues seen during STS–114 and the results of the Shuttle's performance on the second Return to Flight mission, STS–121.

Current estimates for RTF costs are: Fiscal year 2003—$42 million; fiscal year 2004—$496 million; fiscal year 2005—$602 million; and fiscal year 2006—$288 million.

If there are any increases in Return to Flight costs, NASA is committed to accommodating them within its total budget request.

Actual costs to date are tracking very closely with the November 2004 estimate provided to Congress. The total estimated cost for returning the Shuttle to flight status through fiscal year 2009 is approximately $1.98 billion. The out-year costs are associated with added manpower for Systems Engineering. NASA's plan and our budget reflect the end of RTF after the second RTF mission and subsequent post-flight assessment actions. These milestones will take the Agency through most of fiscal year 2006. RTF, from a budget perspective, will end in fiscal year 2006, and will no longer be tracked as a separate effort, beginning in fiscal year 2007.

Question. What is your strategy for executing the other three priorities while coping with the cost impact of return to flight?

Answer. NASA has completed the Exploration Systems Architecture Study (ESAS), which outlines NASA's approach to implementing the Vision for Space Exploration. The Vision calls for the Agency to return the Space Shuttle to flight, complete the International Space Station, return to the Moon, and move on the exploration of Mars and beyond. Based on ESAS recommendations, NASA has now laid out a detailed plan to support sustained human and robotic lunar exploration, operations, accelerate the development of the Crew Exploration Vehicle and launch systems for missions to the International Space Station, Moon, and Mars, and identify key technologies required to enable this exploration architecture. This plan is a safe and sustainable approach that seeks to affordably accelerate the pace of space exploration. An important aspect of this plan is that it is a "go-as-you-can-afford-to-pay" approach," within planned budgets for Exploration Systems, through redirection of funding for longer-term and lower-priority research and technology (R&T) elements within the Exploration Systems Mission Directorate.

NASA has also completed the Shuttle/Station Configuration Options Team (SSCOT) study to evaluate options for the assembly and utilization of the International Space Station, taking into account the President's decision to retire the Space Shuttle by 2010, while still honoring U.S. commitments to the Space Station International Partners. Based in part on this assessment, NASA has developed a plan, subject to the normal budget and appropriations process, as well as ongoing return-to-flight considerations, to move forward and begun discussions with our international partners.

Question. In an ideal world, I suspect that your agency would be relieved if some of the return-to-flight costs could be funded through a supplemental appropriation so as not to detract from other activities, many of which have been supported in the past by the Congress. What would the supplemental requirements be were the supplemental avenue open to NASA?

Answer. The President requested budgets for NASA that were sufficient to return the Shuttle to flight without the need for a supplemental appropriation, and NASA does not expect to need any future supplemental to pay for residual return to flight costs. As stated in response to Question 2(a), actual costs to date for RTF are tracking very closely with the November 2004 estimate provided to Congress. If there are

any increases in RTF costs, NASA is committed to accommodating them within its total budget request.

QUESTIONS SUBMITTED BY SENATOR PATTY MURRAY

Question. While the President's budget proposal would add resources for its plans to finish construction of the International Space Station, increase exploration of the solar system, and develop the technologies needed for future Moon and Mars missions it would cut a servicing mission critical for the survival of the Hubble Space Telescope, as well as drastically decrease aeronautics research.

In addition, I have concerns about the NASA education programs and their ability to work with community education efforts to inspire and prepare the next generation of scientists and engineers.

It is my understanding that many experts in the field claim that the Hubble Space Telescope is one of the most beneficial programs currently being operated by NASA, as it has helped expand our understanding of the universe in ways scientists never thought possible just 15 years ago. Administrator Griffin, if you were to move forward with a plan to end the Hubble program what research programs would take its place to keep increasing our scientific understanding of distant parts of the universe?

Answer. NASA has a number of missions capable of investigating distant parts of our universe. Currently we operate three Great Observatories: The Hubble Space Telescope, the Chandra X-ray Observatory, and the Spitzer Space Telescope. Each of these facilities (all of which will be operational until 2009 and possibly beyond) is used daily by the astronomical community to further our understanding of the heavens. In addition to these operating programs, we have a number of missions in development that will advance our understanding of the distant universe. The Gamma-ray Large Area Space Telescope (GLAST) will launch in 2008 and enable astronomers to study high-energy phenomena with unprecedented precision. The Wide-area Infrared Survey Explorer (WISE), scheduled for launch in 2009, will map the sky in infrared bands of light providing astronomers with a new catalog of objects (both near and distant) for additional study. The James Webb Space Telescope (JWST) will follow these missions in the middle of the next decade and will be the premier platform for observing the distant universe. By virtue of its large collecting area and infrared coverage, JWST will see the earliest galaxies to form in the universe. Finally, NASA also supports a number of cosmic microwave background studies, such as the Wilkinson Microwave Anisotropy Probe, or the Balloon-borne Large Aperture Submillimeter Telescope, that permit astronomers to study the remnants of the Big Bang, very first light ever emitted by the universe. These missions were designed to provide unique views of the universe beyond those obtainable from Hubble. Servicing Hubble would provide additional time to sequence some of these missions, but would not replace the need for this follow-on research.

Question. As you know NASA has been built around the dual missions of space exploration and aviation research. Representing an aviation rich state I am concerned that recent proposals by NASA demonstrate that its commitment to aeronautics and aviation is waning. Aeronautics experts from NASA have developed innovations throughout its history including the X–15 "rocket plane" of the 1950s and 1960s, de-icing systems, and the "supercritical wing"—the rounded-bottom wing design used today by virtually every commercial jetliner to increase speed, improve range and save fuel. Administrator Griffin, I am curious as to why it is that NASA has decided to move away from its critical mission on aeronautics and aviation? And what you foresee is NASA's role, if any, in helping to advance aviation technology in the future?

Answer. Dr. Lisa Porter was recently selected as Associate Administrator to lead NASA's Aeronautics Research Mission Directorate. In that role she has begun the process of reshaping NASA's Aeronautics research program allowing the Agency to take responsibility for the intellectual stewardship of the core competencies of Aeronautics for the Nation. This will require us to reinvest in the Agency's in-house expertise to ensure that we retain the world-class skills, knowledge, and facilities needed to guarantee our Nation's ability to consistently contribute world-class innovation to aeronautical challenges, both civilian and military.

The reshaped aeronautics program will strengthen our partnerships with the Department of Defense (DOD) and Federal Aviation Administration (FAA), capitalizing on each agency's unique capabilities and resources to strengthen the Nation's leadership in aeronautics. Our partnership with DOD will include close collaboration to establish an integrated national strategy for management of the Nation's most vital wind tunnels. We will forge new partnerships and continue to benefit from partner-

ships built in the past with academia and industry. We will seek long-term, intellectual partnerships with industry that will be able to rely on us to invest in the "seed corn" that is the critical ingredient in revolutionary technological advancement.

As a first step, NASA is reshaping the three major programs within the Aeronautics Mission Directorate. The previous Vehicle Systems Program is being renamed the Fundamental Aeronautics Program in order to reflect properly its new focus on basic aeronautical sciences. Within Fundamental Aeronautics, and consistent with direction we received from the Congress, we will re-establish the Agency's dedication to the mastery of core competencies in subsonic, supersonic, and hypersonic flight. We will create projects that provide continual, long-term investment in the fundamentals and that build upon that investment to develop system-level, multidisciplinary capabilities that will enable both the civilian and military communities to build platforms that meet their specific needs. As part of our investment in fundamental aeronautics, we are positioning the program to continue important long-term research activity in fiscal year 2006 that preserves the core competencies in rotorcraft and hypersonics, drawing upon NASA's critical inhouse expertise. We are transforming the Aviation Safety and Security Program into the Aviation Safety Program, where we will focus research on safety areas that are appropriate to NASA's unique capabilities. Projects in Aviation Safety will address integrated vehicle health management, resilient aircraft control, intelligent flight deck technologies, and aging aircraft. The Airspace Systems Program is being realigned to directly address the air traffic management needs of the Next Generation Air Transportation System (NGATS) as defined by the Joint Planning and Development Office (JPDO).

Leading scientists and engineers from the NASA field centers participated in workshops in September and October to lay the foundation for a technical plan to reshape the Aeronautics Research program. As the year progresses, this technical plan will be guided by the National Aeronautics Policy that is being developed by Office of Science and Technology Policy and NASA in collaboration with other agency partners. (Dr. Porter is co-chair of the National Science and Technology Council's Aeronautics Science and Technology Subcommittee.) In addition, the National Research Council is currently conducting a decadal survey for aeronautics, which will also provide inputs to our plan.

Question. On the issue of NASA's education programs I have several questions. As you know the Office of Space Science once operated a widely-respected program that focused on all of NASA's core missions. Under Administrator O'Keefe there was a major shift to centralize the education programs and focus efforts on space-exploration focused schools and sending a teacher into space. Furthermore it is my understanding that the NASA Explorer Schools have been focused on manned space flight instead of broad scientific endeavors. Can you explain why NASA made this shift in the focus on education and what the thoughts and analysis behind eliminating and or altering the old programs were? At a broader level, what is NASA doing within its education program to develop lasting enthusiasm in science to truly help create the scientists of the future?

Answer. Early in fiscal year 2003 NASA did indeed shift management responsibility for some of its education programs by establishing its Office of Education, separate from the Mission Directorates but to address and coordinate within NASA and for NASA education endeavors with other federal agencies. This shift did not eliminate or significantly alter any education programs conducted by either the Office of Space Science or the Office of Earth Science.

In August 2004, the Office of Space Science and Office of Earth Science were merged to create the new Science Mission Directorate. The education programs of these predecessor organizations have continued and efforts are underway to exploit synergies to enhance the science education program. These efforts will build on the strengths of the current programs and focus on engaging learners of all ages in the NASA mission of exploration and discovery. In fact, for the most recent reporting year [2004] the space science programs reached over 400,000 direct participants in workshops, community and school visits, and other interactive special events; 7 million Internet participants for web casts, web chats, and other web events, and, a potential audience of over 200 million for lectures, planetarium shows, museum exhibitions, conference exhibits, radio, television, and other forms of public media. Through the NASA Science Mission Directorate, NASA backed science education can be found in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. The Mission Directorates continually assessing the educational opportunities and content presented to ensure

The NASA Explorer Schools (NES) project, launched in 2003 and managed by NASA Office of Education as one of four Pathfinder Initiatives, is designed to en-

gage all NASA Centers and the four Mission Directorates, has six primary objectives:

—To increase student interest and participation in mathematics, science, technology and geography;
—To increase student knowledge about careers in mathematics, science, engineering and technology;
—To increase student ability to apply mathematics, science, technology and geography concepts and skills in meaningful ways;
—To increase the active participation and professional growth of educators in science, mathematics, geography and technology resulting in higher quality education for K–12 students;
—To increase the academic assistance for and technology use by educators in schools with high populations of underserved students; and
—To increase family involvement in children's learning.

The NES project is specifically designed to meet the individual needs of each competitively selected school. Upon entering the project, each school completes a needs assessment which NASA uses to create a multifaceted approach to meeting school needs, and which reaches far beyond the NES network to provide opportunities to highlight and implement all Mission Directorate programs. Content material includes: pre-algebraic concepts, inquiry-based math modules related to the science, engineering and technology of space flight, digital image processing and analysis (IPA) and geographic information systems (GIS), integrate NASA earth and space content, updated NASA-content as we learn more about the space environment, and providing symposia for participating schools in topics ranging from spaceflight to robotics to Mars exploration.

NES will also provide opportunities to all interested schools in the United States. These challenges focus on science, technology, engineering, and mathematics—subject areas needed for technical careers at NASA. Areas to be addressed included: Space Flight Opportunities; Imagine the Moon; Crew Exploration Vehicle Design; and Multi-media Explorations. Furthermore, the NASA Aerospace Education Services project utilizes all available NASA content and resources to support not only the NASA Explorer Schools but schools from across the country that express an interest in our assistance. Content and resources come from across NASA.

NASA education continues to create and promote educational materials and opportunities within all Mission Directorates—Aeronautics Research, Science, Space Operations, and Exploration Systems, as well as through its Office of Education.

Question. Furthermore, I am interested in how NASA can improve its education mission to build long-term partners with community based science and education efforts? Specifically, what ways are you looking at to take NASA resources and imbed them within the efforts of community based organizations in order to make NASA's education programs sustainable and ensure that those efforts become institutional and long-lasting?

Answer. NASA is continuing efforts to expand education in the sciences, technology, engineering and mathematics through numerous venues within the informal education community, to include museums, science centers planetariums, youth and community groups among others. These activities take place every day, conducted through the four Mission Directorates, the ten NASA Centers, and the NASA Office of Education.

In fact, one of the nationwide NASA Pathfinder Initiatives, the NASA Explorer Institutes (NEI) project is specifically designed to enhance the capabilities of the informal education community to inspire the next generation of explorers by:

—Providing access to NASA staff, research, technology, information, and/or facilities and by engaging the informal education community in discussions about how to involve the public in shaping and experiencing NASA-related missions;
—Identifying NASA-related instructional content, resources, and information, in collaboration with the informal education community that will enhance informal education program goals and objectives;
—Providing NASA-related professional development opportunities for members of the informal education community across the nation; and
—Facilitating the formation of collaborative partnerships between informal and formal education communities.

The project is in the second full year of its 3-year roll out. In fiscal year 2004, activities involved organizations in 46 states, the District of Columbia, Puerto Rico, the Virgin Islands, and the Overseas Military Program. Organizations represented science centers, museums, planetariums, libraries, parks, aquariums, nature centers, youth groups, community-based organizations, and state and federal agencies.

In fiscal year 2004, NASA conducted eleven focus groups across the nation on a variety of topics, with each group focused on a different set of strategies. But, each

shared similar goals of improving the public's understanding and appreciation of science, technology, engineering, and mathematics (STEM) disciplines; establishing linkages that promote new partnerships/relationships between providers of informal and formal education; exciting youth, particularly those who are underrepresented and underserved, about STEM disciplines; and expanding STEM informal education programs and activities to communities/locations that have been traditionally underserved by such opportunities. Many of the focus groups resulted in previously unconsidered collaborations, such as now-growing connections in Native American communities with space scientists, and connections in nascent or changing industries, such as data visualization and digital productions. Participants of these focus groups represented over 200 institutions (museums, science centers, community groups, industry, etc.), and they expressed support at NASA's willingness to listen and openness to new ideas.

NASA Explorer Institutes also supported six pilot professional developments workshops, connecting informal educators to NASA's unique facilities and expertise. These workshops led to a number of successful follow-up projects, including a number of regional collaborations by workshop attendees. Based upon results of the workshops and focus groups, the NASA recently released a new solicitation for NASA Centers to host NASA Explorer Institutes later this year.

Through the NEI project NASA also leveraged partnerships with several organizations to share NASA's discoveries and experiences: (1) For the Nation's afterschool programs, the American Museum of Natural History conducted an eighteen-month study and demonstration project that included a scan of existing science programming in afterschool environments, the development of prototype curriculum packets based on NASA resources, pilot testing and staff training in three afterschool programs in New York City, a review of science education research and promising practice literature, and consultations with experts in science education, afterschool, and curriculum development. (2) With the National Park Service, NASA developed an agreement that resulted in the design of professional development experiences for interpreters that include NASA content to enhance the compelling stories of natural and cultural resources of the parks.

Workshop participants adapted space science and earth sciences resources for use in their parks, and developed new interpretive material. (3) With the Girl Scouts of the USA (GSUSA), NASA broadened the knowledge of national master trainers to increase their understanding of an integrated NASA Earth and Space Science Story. These master trainers are now mentoring trainers across the nation, competitively selected from GSUSA councils with significant populations of ethnically, economically, and/or geographically underserved girls. (4) Finally, several NASA Centers are collaborating to produce the Workshop for Informal Education Specialists, a Return to Flight public engagement event with over 80 informal education venues (museums, science centers, planetariums) to prepare partners to help NASA positively engage the public in experiencing the excitement of exploration and human space flight.

Question. Finally, Mr. Administrator, as you know, the country needs capability to deliver cargo to and recover it from the International Space Station. NASA has indicated that it intends to release a "request for proposal" (RFP) this year for the International Space Station commercial cargo transportation services. What is NASA's timetable for its release and response?

Answer. NASA has undertaken a number of steps to assess its future requirements for crew and cargo transportation in support of the ISS and future human exploration. A Request for Information (RFI), issued in September 2004, solicited information regarding capabilities and market interest from existing and emerging domestic commercial space transportation providers. NASA also conducted an ISS Cargo Industry Day earlier this year to exchange technical information with potential commercial providers. Within the next month, NASA will issue a draft solicitation requesting commercial service demonstrations for ISS crew and cargo delivery and return. Where commercial providers have demonstrated the ability to meet NASA needs and safety requirements, commercial services will be purchased instead of using government assets and operations.

QUESTIONS SUBMITTED BY SENATOR BYRON L. DORGAN

UPPER MIDWEST AEROSPACE CONSORTIUM

Question. Last year, Congress earmarked a number of projects in the fiscal year 2005 Omnibus bill including $2,000,000 to the University of North Dakota in Grand

Forks for the Northern Great Plains Space Sciences and Technology Center under the Earth Science account. What is the status of these funds?

Answer. NASA has completed review of the proposal from the University of North Dakota for the Northern Great Plains Space Sciences and Technology Center, and funding has been approved for release. Grant award is expected within the next few weeks.

SPACE AND EARTH SCIENCE

Question. NASA conducts both Space and Earth Science. Earth Science appears to be more weakly supported within the agency. What role do you envision for Earth Science?

Answer. NASA maintains a vigorous program in Earth science that makes important contributions to several interagency Administration initiatives, including Climate Change Science, Earth Observations, and Ocean Action, as well as NASA's Vision for Exploration. As an example, NASA's contribution to the Administration's Climate Change Science Program (CCSP) is far and away the largest of any Federal agency, constituting some 60 percent of the total CCSP investment by the U.S. government. NASA's support for Earth science has remained consistent, and recent statements by Dr. Griffin emphasize NASA's commitment to a robust portfolio across Earth and space science disciplines that will continue NASA's historic support.

WINDOW OBSERVATIONAL RESEARCH FACILITY (WORF)

Question. The University of North Dakota has been developing AgCam, a sensor intended to operate on the International Space Station. With the problems with the Shuttle, and getting equipment to the Space Station, there is some question as to when AgCam will be able to go up. AgCam was designed to go into the WORF (Window Observational Research Facility). The WORF provides an enclosed environment at a comfortable temperature and pressure, so that AgCam did not have to be built to the specifications of devices in the vacuum of interplanetary space. However, the WORF is not scheduled for a shuttle flight until May 2007 and may not be sent then.

Is the Window Observational Research Facility (WORF) scheduled for a launch on the Space Shuttle? When?

Answer. NASA has assessed its plans for the utilization of the ISS, and focused its research and technology development goals toward those activities that most closely support the Vision for Space Exploration. In this environment of limited opportunities for the launch of facility-class payloads, it is critical that utilization planning align as closely as possible with the needs of the human exploration planning effort. The only missions for which specific payloads have been manifested on the Space Shuttle are the first two Return to Flight missions. Consistent with the Vision, the Space Shuttle will be retired by 2010. Prior to its retirement, it will be utilized primarily for the assembly of the ISS. Our top priority will be to make each flight safer than the last. As we noted in our November 2004, correspondence to you on this topic, in the event that a future flight opportunity does become available on the Space Shuttle, the WORF facility will be considered for delivery to the ISS. The University of North Dakota has been apprised of the situation and is aware that NASA cannot commit to the flight of WORF on the Space Shuttle.

Question. If the WORF cannot be launched to the ISS, could AgCam be accommodated some other way?

Answer. The AgCam hardware has been designed and built to be operated in the WORF. The WORF would provide resources such as power, thermal control, data and mounting positions for operations of the AgCam. The hardware as designed could not operate independently of the WORF. It might be possible to redesign the AgCam hardware and its operations concepts, but the University would require additional funding, testing, and development time; even with such a redesign, it is unclear whether the redesigned hardware could achieve the expected scientific value without the WORF.

Question. What are the plans for Earth observations from the International Space Station?

Answer. While NASA is not pursuing new Earth sciences research on the ISS because of the limited launch opportunities on the Space Shuttle, we are continuing with two Earth observations programs already on-orbit.

The Earth Knowledge Acquired by Middle Schools (EarthKAM) program allows middle school students to command, via computer, a digital camera mounted in a window of the ISS and integrate Earth images taken by the camera with inquiry-based learning for 5th–8th grade students. Photos are made available on the Web

for viewing and study by participating schools around the world. Educators use the pictures in conjunction with curricula for projects involving Earth Science, geography, physics, math, and technology. To date, over 80 schools with more than 1,600 students from the United States, Japan, Germany, and France have participated in the EarthKAM program.

The Crew Earth Observations (CEO) program continues, with the ISS crew photographing various Earth sites on a daily basis. Hand-held photography of the Earth from human spaceflight missions, spanning more than 40 years, provides insights and documents changes on the Earth. The ISS crew members are building on this time series of imagery, which was started in 1961.

INTERNATIONAL SPACE STATION PROPOSAL

Question. Mr. Administrator, it is my understanding that in the coming months NASA is expected to release a "request for proposal" (RFP) for International Space Station (ISS) commercial cargo transportation services, which would provide the necessary means for getting cargo to and from the ISS. In order for markets to have time to plan, could you provide a general timeframe for the RFP's release and the expected response time?

Answer. NASA has undertaken a number of steps to assess its future requirements for crew and cargo transportation in support of the ISS and future human exploration. A Request for Information (RFI), issued in September 2004, solicited information regarding capabilities and market interest from existing and emerging domestic commercial space transportation providers. NASA also conducted an ISS Cargo Industry Day earlier this year to exchange technical information with potential commercial providers. Within the next month, NASA will issue a draft solicitation requesting commercial service demonstrations for ISS crew and cargo delivery and return. Where commercial providers have demonstrated the ability to meet NASA needs and safety requirements, commercial services will be purchased instead of using government assets and operations.

SUBCOMMITTEE RECESS

Senator SHELBY. The subcommittee will now stand in recess until 10 o'clock, on Tuesday, May 24, when we will hear testimony from the Attorney General, Alberto Gonzales, and the Director of the Federal Bureau of Investigation, Robert Mueller, on the Department of Justice's budget for 2006.

The subcommittee is recessed.

[Whereupon, at 3:28 p.m., Wednesday, May 11, the subcommittee was recessed, to reconvene at 10 a.m., Tuesday, May 24.]

COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

TUESDAY, MAY 24, 2005

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:01 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Stevens, Mikulski, Leahy, Kohl, Murray, Harkin and Dorgan.

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY GENERAL

STATEMENT OF HON. ALBERTO R. GONZALES, ATTORNEY GENERAL

Senator SHELBY. The subcommittee will come to order.

I want to welcome Attorney General Alberto Gonzales and the Director of the Federal Bureau of Investigation (FBI), Robert Mueller. Thank you both for appearing before the subcommittee this morning. This is your first appearance before the newly created Subcommittee on Commerce, Justice, Science, and Related Agencies. Previously in my capacity as the chairman of the Senate Select Committee on Intelligence we had the opportunity to work together, and I hope to continue that relationship with you.

I look forward to hearing from each of you about your vision of the Justice Department and the FBI respectively, and the challenges each of you see in the coming fiscal year. In particular I want to take this opportunity to thank the men and women who work at the Justice Department and all they do to keep America safe.

Based on my review of your budget request and the constraints of the subcommittee, I believe it will take your leadership to make the tough choices regarding the allocation of resources given the budget constraints we are facing.

FISCAL YEAR 2006 BUDGET REQUEST

The fiscal year 2006 budget request for the Department of Justice is $20.3 billion and represents an increase of 1 percent over the 2005 enacted funding level. While the budget proposes increases for the FBI, the United States Attorneys, the United States Marshals Service, and the Bureau of Alcohol, Tobacco, Firearms and Explo-

sives (ATF), this budget proposes severe cuts to other important programs. In particular it proposes to cut $1.4 billion to State and local law enforcement programs. It rescinds $314 million in funds for the construction of new prisons, and proposes $123 million in new fees to fund base operations for critical law enforcement activities. This budget also proposes to rescind $1.3 billion held in trust for victims of crime to offset costs elsewhere. With that proposed offset, the Justice Department's request is actually $19.1 billion and represents a 5 percent decrease from the 2005 level.

I find these cuts to be unacceptable and perhaps irresponsible, particularly as they relate to the rescission of important funds and the proposal of new fees.

I want to be supportive of this request, but these reductions and the budget maneuvers concern me and will concern others on the subcommittee. For example, the budget proposes to increase a fee on the explosives industry to generate revenue of $120 million in offsetting collections in 2006. I want to point out that even if Congress passed this proposal today I am told it would take the Department 2 years to even begin collecting the fee. If that is true, I do not understand how the Department of Justice proposes to use the receipts from this fee to offset fiscal year 2006 law enforcement operations. This $120 million hole is just one example of many contained in this request. These shortfalls will force the committee to make some extremely difficult choices.

Another offset that concerns me is the proposal to rescind funding previously provided by this subcommittee for new prison construction. Not only are we facing significant overcrowding at Federal prison facilities, but you are projecting the addition of approximately 8,000 new prisoners each year to those already crowded facilities. The budget proposes to rescind $314 million for funding already provided to build two medium security facilities. Without construction and activation of these two facilities, projected medium security crowding, which is already 50 percent over capacity, will be 10 percent higher by 2009.

As for increases, Mr. Attorney General, your budget request proposes that $2.7 billion be spent on information technology, also, I expect there to be some direct oversight by you of the systems being developed by the Department and in its bureaus. The fact that the Department's CIO has control of less than 10 percent of the information technology (IT) resources and the employees who build, run and maintain these systems, explains why there is no universal plan for systems development in the Department. But given the current budgetary constraints there are not sufficient resources to continue building these stovepipe systems that fail to deliver the results promised to the taxpayers and to the users.

I am especially interested in hearing what specific oversight the Department is conducting with respect to the FBI's Virtual Case File (VCF). I was extremely disappointed to learn of VCF's failure and the significant loss of funds associated with it. While I wholeheartedly support bringing the FBI into the 21st century and realize the importance of information technology to the FBI's mission, we cannot support unlimited and unchecked resources, and will not tolerate broken promises for results that are never realized or delivered. I believe, given one failed attempt, it is imperative that you

proceed with caution to ensure that we do not make the same mistakes twice. We expect results and will do everything we can to ensure that there is congressional oversight for this program. Someone must be accountable for the success or failure of VCF and all of the Department's programs.

There are many other issues that we anticipate discussing during this hearing, including the FBI's use of resources on priority missions, the relationship of the FBI Director and the new Director of National Intelligence, and the funding implications of that relationship, and the critical human resources issues the FBI is now confronting.

Attorney General Gonzales and Director Mueller, I look forward to hearing your thoughts on the Justice Department's budget request and will look forward to working with you on other important issues facing this country.

OPENING STATEMENT OF SENATOR BARBARA A. MIKULSKI

Senator Mikulski.

Senator MIKULSKI. Thank you very much, Mr. Chairman, and good morning to the subcommittee and to the Attorney General and to Director Mueller.

This is our first hearing of the Senate Appropriations newly constituted Commerce, Justice, Science Subcommittee, and as I said, I look forward to working with Senator Shelby. This is a great subcommittee due to Senator Shelby's long experience and involvement in this, and also because we both were on the Intelligence Committee together. As Senator Shelby said, we look forward to really working with you in both unclassified and classified situations. And we have Senator Leahy, the ranking member on Judiciary, which hopefully means we will be able to combine sound policy with a good budget.

We also note that as of this morning the Justice Department and the White House have sent forth a name for the U.S. Attorney in the State of Maryland. We have met with him and we feel confident that he will make a good one, and I assure you that I will do all that I can to move his nomination expeditiously.

As we look at what the Justice Department is facing, it is one of the most critical agencies in our country. It must join together to fight the global war against terrorism, and yet protect us against other threats of organized crime, white-collar crime and the rising gang violence. Its agencies are some of the most important that serve our Nation. In addition to the overall Justice framework, there is the FBI, the Drug Enforcement Administration, ATF, and our Marshals Service, often overlooked.

In serving in this subcommittee we look forward to working with you to build a safer and stronger country. And like Senator Shelby, I too am very concerned about this budget. Particular concerns to me are the drastic cuts to local law enforcement programs which have to be the hallmark of law enforcement in our community, and law enforcement, when it is coordinated, really serves the national interest.

Also, I am deeply concerned about the irresponsible $1.3 billion rescission in the Crime Victims Fund. My job is to make sure the

Department stands sentry on protecting America and our country and to make sure that we are the safer and stronger country.

In order for our law enforcement strategy to work, we need to really focus on local law enforcement, and I have been concerned about programmatic cuts in the community oriented policing services (COPS), the Byrne program and others at the local level.

I just would like to commend you, Mr. Attorney General, and then also to thank Director Mueller. We had a terrible situation here a few years ago with the sniper case, and it was a phenomenal effort of coordination, and we could not have done what we did without the FBI and Gary Bald and our ATF, who worked closely with our county executive, Doug Duncan. But we did not federalize it. We worked with the local law enforcement people. We had a national effort without federalizing. The Federal Government came in with its highest and best use of resources, but because of all of the funding and work of local law enforcement and the insistence that they coordinate, there was a brotherhood of the Beltway, truly a brotherhood around the Beltway. What they were able to do is to find the killers, and now as you know, they are in our judicial system.

That to me is the model of local law enforcement, particularly when a nation or a community is under threat. So I am very committed to being able to make sure that local law enforcement has what it needs and that we have this kind of intense partnership.

The other issue that we see on the rise is the issue of gang violence, and we hope to discuss this with you more, particularly because this issue is not only in our region, but it is a growing one.

In an ideal world we could have had a separate hearing just on the FBI, but we need to move expeditiously in this appropriations cycle so that we are part of the cycle, and I want to thank Senator Shelby for the way he is organizing the subcommittee. But for the FBI, we really look forward to our continued relationship with the Director. We have worked with him in the intelligence effort. But now as we look at the FBI, we know we look at the request for increased funding for more analysts, language training, all of these things which we intensely support. We must go back though to the issues of Trilogy and to make sure we are on track with that, and at the same time as we work on making sure there is the technology to work, we cannot let domestic issues fall by the wayside, and I will be raising issues on an effort on health care fraud, the bilking of our citizens.

So we will be talking about that as well as the gang issue and the prisoner reentry program.

I am very interested, and I know Senator Shelby has raised the issue of new prisons. We have a Federal prison in Cumberland, Maryland and I compliment you on its staff. But what happens when the prisoners come home, and do we have a way that prevents recidivism and reintegrates them into the community and into the family?

Mr. Gonzales, I know this is a keen issue with you, and perhaps this is one of the areas where faith-based initiatives really work best because of its community-based initiative to welcome the prisoner, coordinate with parole or probation, and at the same time

make sure that when they reenter we move them to a new way of life and we look forward to discussing this with you.

Mr. Chairman, that concludes my statement. There is so much to talk about, but we agree on a lot of the priorities. We just need to agree now on the wallet.

Senator SHELBY. Senator Leahy.

OPENING STATEMENT OF SENATOR PATRICK J. LEAHY

Senator LEAHY. Thank you, Mr. Chairman. I join you and Senator Mikulski in welcoming Attorney General Gonzales and FBI Director Mueller here, and I know they represent the hard-working men and women of the Justice Department, the FBI, people who work around the clock every single day of the week, protect all Americans, and I would hope that all Americans are grateful.

They are here to talk not only directly on policy but indirectly on policy because they are going to talk about the budget request for the Justice Department, a request which recommends lessened priorities, substantial cuts in several programs that are critical to State and local agencies. They are in charge of fighting crime and preventing terrorism and assisting victims.

I share the frustration of local and State law enforcement. All of us, both Republicans and Democrats have heard from them, and the first responder agencies because they see a budget request that includes elimination and reduction of funding by $1.5 billion. That is a 46.2 percent reduction in programs crucial to their day-by-day efforts. As a Senator from a rural State I've seen the partnerships we have made with our rural law enforcement, and how our State police have been called upon to carry out duties they had never done before, in cooperation with the Federal agencies. So when the administration proposes a 46.2 percent cut in what they have for law enforcement it is a matter of concern.

The Department's top priorities continue to be the prevention, investigation, and the prosecution of terrorist activities against U.S. citizens and interests, as we see in their request for $535 million in new investments for the FBI including counterintelligence activities and Justice information systems technology. But I think it is legitimate to ask questions about how the FBI has handled some of these resources. At our last hearing in February we examined the lack of a Virtual Case File and the millions wasted on lessons learned. I hope that the Director will have new information today on the program successor, so-called SENTINEL, on the status and cost and make sure that this is not money down the drain like the last time.

There have been concerns that traditional duties to the Justice Department have garnered too little attention and support. They have to lead the Nation in deterring, investigating, prosecuting gun, drug, civil rights violations, incarcerating offenders, partnering with State, local and community groups to prevent crimes, and of course leadership and assistance in meeting the needs of crime victims. We have seen an end to the downward trend in violent crimes with rates leveling out instead of continuing to climb. The FBI has reported an overall violent crime decline of 3 percent in 2003. That is great news, but murders increased by

1.7 percent, and that of course creates a concern especially as it reflects a change and a downward slide.

The President says that he wants to ensure that our State and local police receive the resources necessary to do the job. Last week at the National Press Club the Attorney General said—and I totally agree with what he said—"we rely on local information, local partners to fight local crime, the beat cop, the county sheriff, and the lifelong investigator. They understand what is happening in the towns and cities and what needs to be done to stop it."

Attorney General GONZALES. I could not agree with you more. But I worry when I see the drastic cuts in those programs. Under the President's budget we are going to see an end to grants for hiring on the beat and school resources officers. We see under the President's budget severe reductions in equipment and support staff grants to combat illegal drugs, particularly methamphetamine production and distribution. We are going to see drastic cuts of 50 percent to programs that support activities to prevent juvenile delinquency and address juvenile crime, something we were finally getting a handle on. The Boys and Girls Clubs of America, for example, something that has been proven to be a success, is going to see its budget cut by 30 percent.

And finally, and this I really cannot understand, in the Crime Victims Fund, which has had enormous bipartisan support, the President has proposed to take all the amounts remaining in the fund, all of them, at the end of fiscal year 2006. That is a cut of $1.2 billion. It is going to place crime victim service programs in serious jeopardy. I think it sends a wrong message to law enforcement officers and crime victims. They see us spending billions of dollars for victims of crimes in Iraq, but we are cutting out every single cent in this budget for crime victims in America. I am not saying we should cut out the money in Iraq. That is not the question, but if we can find it in our hearts and our pocketbooks to help crime victims in Iraq, why are we taking away all the money that was put in there for crime victims in the United States. I do not think we should be eliminating initiatives that we know to be effective.

Strengthening security, information sharing, and disaster response programs to combat terrorism must not totally overshadow the prevention of more traditional crimes. Frankly, most people are far more worried about a burglar, a rapist, a murderer or somebody who is stealing their identity, doing these crimes, than they are about an airplane flying into their homes or the buildings where they work. Of course we watch out for the airplanes, but I think that the average person is far more worried about the safety of their home and their business and their person, and when they go shopping or with their children going to school. And if they have been a victim of a crime they are worried about being helped as a victim.

Mr. Chairman, I commend you for having this hearing. I think it is very important, and I congratulate you on your new chairmanship.

Senator SHELBY. Thank you.

Senator Stevens.

Senator STEVENS. I have no opening statement. Thank you.

Senator SHELBY. Senator Harkin.

OPENING STATEMENT OF SENATOR TOM HARKIN

Senator HARKIN. Thank you, Mr. Chairman. I will be brief.

Mr. Attorney General, between 1993 and 2003, violent crime in this country declined by more than 50 percent, from 49.1 to 22.3 incidents of violence per 1,000 persons. During this same period of time the Federal Government provided an increased level of assistance to local law enforcement agencies in the form of grants. Three programs in particular, the Edward Byrne Memorial grant, the local law enforcement block grant, and the COPS program, have been critical in providing resources to pay for more law enforcement officers and to fund more regional cooperation.

However, between fiscal year 2003 and 2005 over $1 billion in grant assistance to State and local law enforcement was cut from the Department of Justice (DOJ) budget. This year you are taking the final step and eliminating what remains of these programs, and depriving law enforcement agencies across the country of an additional $1.3 billion. This is quite a way to say thank you to the men and women in law enforcement. It is quite a way to handle programs that have contributed to this amazing reduction in violent crime.

Just as an example of what these cuts mean, the Byrne program, which is being eliminated, funds 4,316 cops and prosecutors working on 764 drug enforcement task forces nationally. Byrne funding led to 130,000 drug arrests in 32 States, the seizure of 136 tons of illegal drugs, the confiscation of over 7,000 weapons and the seizure of 7,691 meth labs. Yet the administration's rationale for doing away with the program is that it has not demonstrated results.

So, Mr. Attorney General, I would like very much for you to visit Iowa, where like many other midwestern States we are in the middle of a methamphetamine crisis. Our Byrne dollars, the ones that may not exist next year, fund 74 task forces and pay for an additional 84 law enforcement salaries. They fund task forces responsible for the seizure of 63 percent of the meth labs in my State of Iowa. They fund a women's prison treatment program, where only 9 percent have gone back on meth after their release. It is an award-winning dual diagnosis treatment program.

These funds are, quite simply, critical to the fight against meth. They are making a difference. When it comes to my turn for questioning I would like to again question you further about the taking away especially of the Byrne grant programs.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Murray.

OPENING STATEMENT OF SENATOR PATTY MURRAY

Senator MURRAY. Mr. Chairman, thank you very much, and thank you to both Attorney General Gonzales and FBI Director Mueller for being here today, and I thank you and the ranking member for holding this hearing.

I do not have an official opening statement. Let me just say I echo the concerns about the cuts to the Byrne justice assistance grants and to the COPS Program. I am very deeply concerned

about those cuts and the impacts, as well as the proposal not only to cut HIDTA funding but to move it, and the implications there. I am also very concerned that the Department of Justice has not done enough to stop the spread of methamphetamine and other synthetic drugs, and I will be asking you about that during the questioning as well.

Mr. Chairman, most importantly to my State, as we have been dealing with challenges along the northern border and being much more aggressive, it has been good, but a lot of the costs have been dumped on our local jurisdictions to be able to deal with some of the drug smuggling and money laundering and other crimes, that as a result of more intense border security, we have been pushing these to the local jurisdictions to deal with it. It is a tremendous cost to the communities on our northern border. So I will be asking about that during the questioning.

Thank you for having this hearing.

Senator SHELBY. Mr. Attorney General, your written testimony, your written statement will be made part of the record, and so will yours, Director Mueller. You proceed as you wish. Welcome to the subcommittee.

OPENING STATEMENT OF ATTORNEY GENERAL GONZALES

Attorney General GONZALES. Good morning, Mr. Chairman, Senator Mikulski and members of the subcommittee. It is my pleasure to appear before you with Director Mueller to present the President's fiscal year 2006 budget of the Department of Justice.

This budget reflects some tough decisions, but it is a budget that I fully support. It reflects the President's charge for every public servant, which is not to simply spend more with the best of intentions, but to spend more wisely with an eye toward results.

It builds on our number one priority by including over $500 million in new investments for preventing and combatting terrorism. I would like to present a few highlights from the budget that we believe will lead to a stronger Justice Department, better homeland defense, a more effective counterterrorism effort, and even smarter crime-fighting initiatives.

FEDERAL BUREAU OF INVESTIGATION INTELLIGENCE AND COUNTERTERRORISM PROGRAMS

First, the President's budget includes funding to strengthen the FBI's intelligence and counterterrorism programs, as has been mentioned, including additional resources to hire 499 intelligence analysts and 288 new agents for the counterterrorism program.

Our request also continues efforts to partner with State and local governments to maximize resources targeted to homeland security. It includes over $90 million in directed investment grants for counterterrorism and counterintelligence efforts.

DRUG FIGHTING STRATEGIES

Second, the President's budget request will lead to even more effective drug fighting strategies. We request enhancements of $245 million for drug enforcement efforts. For the first time in a decade, drug use has decreased among 8th, 10th, and 12th graders. With

extraordinary collaboration between Federal law enforcement agencies, in the past 2 years we have hurt international trafficking organizations responsible for the U.S. drug supply.

We know from experience that law enforcement agencies must pool their resources and expertise to target trafficking networks effectively. The Department of Justice's drug enforcement strategy refocuses the organized crime drug enforcement task force (OCDETF) program to conduct coordinated investigations of major drug supply and money laundering organizations, targeting the entire infrastructure of these enterprises. For this successful program, we are requesting additional resources of $172 million and 517 positions.

Also included are enhancements of $72.9 million for the Drug Enforcement Administration (DEA). This money will mean 122 new positions, including 76 new agents for the DEA.

To assist State and local efforts in implementing drug enforcement programs and strategies, the Department's fiscal year 2006 request also includes $206.7 million in directed investments, including a $19.3 million increase for residential substance abuse treatment, an additional $30 million for drug courts, a $19.4 million increase for Southwest border drug prosecution, $20 million to continue methamphetamine lab cleanup, and $5 million to continue the prescription drug monitoring program.

FIGHT VIOLENT CRIMES

Third, the President's budget will continue to build on the President's vision for policies that fight violent crime with hard time. Violent crime and firearms trafficking continue to be significant law enforcement problems throughout our Nation. We are committed to reducing violence and getting gun criminals off the streets through the Project Safe Neighborhoods (PSN) Initiative. The Department is requesting a total of $379 million for PSN in fiscal year 2006. PSN is a comprehensive strategy that brings together Federal, State and local agencies to reduce violent crime in our communities. Working with the Department, each community tailors a program to target local gun violence problems.

PROTECT WOMEN AND CHILDREN

Fourth, the President's budget builds on our successful efforts to protect women and children and to build a more just and safer society for all. Over the last year we have worked aggressively with other law enforcement agencies to target and prosecute a large variety of offenders posing grave threats to children, including large international rings of organized and predatory child molesters and commercial producers and sellers of child sex abuse images. Through these efforts more than 150 child victims were rescued. The fiscal year 2006 budget increases funding by $10.4 million for our efforts to fight child pornography and obscenity.

COURT SECURITY AND DETENTION RESOURCES

Fifth, as a result of aggressive law enforcement policies targeting terrorism, violent crime, immigration violations and drug crimes, as well as increases in the number of FBI, DEA and U.S. Immigra-

tion and Customs Enforcement (ICE) agents, the number of criminal suspects appearing in Federal court continues to grow, as does the number of individuals ordered detained and ultimately incarcerated. The fiscal year 2006 budget provides significant resources needed to improve courtroom security and the detention and incarceration of those accused or convicted of violent crimes. During fiscal year 2004 the Nation's Federal prison population rose 4.3 percent. That is an increase of more than 7,300 inmates. At the same time the Federal prison detention population rose 11.8 percent. Our fiscal year 2006 budget requests $509.6 million in additional resources for the Federal Bureau of Prisons, U.S. Marshals Service, and the Office of the Detention Trustee to manage this growth.

Finally, the President's budget includes many directed investments and efficiencies to ensure that the Department continues down the path of wise and effective financial management so that we maximize every dollar that is provided to us.

PREPARED STATEMENTS

Chairman Shelby, Senator Mikulski, members of the subcommittee, I am honored to testify here, and I look forward to working with you in the days and months ahead for a budget that will lead to a safer, more secure, and more just America.

Thank you, and I would be pleased to answer any questions you might have.

[The statements follow:]

PREPARED STATEMENT OF ALBERTO R. GONZALES

Good morning Chairman Shelby, Senator Mikulski and Members of the Subcommittee: It is my pleasure to appear before you for the first time to present the President's fiscal year 2006 budget for the Department of Justice. I assumed this office knowing that the Department of Justice (DOJ) is fully committed to protecting the lives and the liberties of our citizens. As such, the budget proposal I bring before you today requests resources to continue protecting Americans and keeping our streets safe. For fiscal year 2006, the President's budget requests $19.1 billion for the Department of Justice, including $535.2 million in new investments for preventing and combating terrorism, including counterintelligence.

The budget I present to you is also mindful of our need to ensure that programs achieve their intended result. We propose a number of reforms and, where warranted, program reductions or eliminations. As a result, the spending increases proposed in our budget are offset by $1.88 billion in program savings and I look forward to working with you to achieve these savings.

The Department's fiscal year 2006 budget requests $3.1 billion in homeland security spending, including funding to strengthen the Nation's counterterrorism investigative capabilities to identify, track and prevent terrorist cells from operating in the United States and enhance the Nation's counterintelligence analysis capabilities. This request also provides necessary resources to continue our efforts to deter, investigate and prosecute federal crimes, including gun, drug and civil rights violations; incarcerate offenders; partner with state, local, community and faith-based groups to prevent crime, including crimes against children; and provide leadership and assistance in meeting the needs of crime victims.

PREVENTING AND COMBATING TERRORISM, INCLUDING COUNTERINTELLIGENCE

Over the past three years, the Department has steadfastly allocated resources to counterterrorism and has undergone a transformation in our priorities, as well as our organization. Within DOJ, the Federal Bureau of Investigation is in the process of standing up a comprehensive Intelligence Program to prevent terrorist attacks, an effort that has been accelerated by the passage of the Intelligence Reform and Terrorism Prevention Act of 2004. The fiscal year 2006 budget includes funding to strengthen the FBI's Intelligence and Counterterrorism Programs, such as addi-

tional resources to hire an additional 499 Intelligence analysts and 288 agents for the Counterterrorism Program.

Tremendous strides in the war on terrorism were made under the leadership of Attorney General John Ashcroft. In the past year alone, the Department of Justice has arrested 379 individuals on counterterrorism-related charges and prosecuted and obtained convictions in 200 terrorism-related cases.

Under my leadership, we in the Department will continue to be resolute in our quest to address terrorism and other threats to our Nation with integrity and devotion to our highest ideals. I appreciate the support shown by this Subcommittee and the Congress in providing the necessary resources for the Department of Justice to be a champion and build a culture dedicated to protecting the lives and liberties of Americans. The budget that I present to you today reflects this support and seeks to enhance the Department's ability to protect America.

Enhancing Counterterrorism/Counterintelligence Capabilities

Since September 11, 2001, the Federal Bureau of Investigation's (FBI) counterterrorism workload has more than tripled, from 9,340 cases pending and received in the field to over 33,000 in fiscal year 2004. This budget request includes resources for the FBI to provide critical counterterrorism investigation capabilities. This funding will allow the FBI to strengthen its effort to identify, track, and prevent terrorist cells from operating in the United States. Principal increases would provide funding to: double the size of the Hostage Response Team, hire 499 additional intelligence analysts, enhance the foreign language translation program by $26 million, and expand the Legal Attaché program.

This budget also includes funding for two Presidential initiatives, the National Counterterrorism Center (NCTC) and the Terrorist Screening Center (TSC). The NCTC, established in May 2003 as the Terrorist Threat Integration Center, is a multi-agency effort that merges and analyzes intelligence information to provide a comprehensive threat analysis to the intelligence and law enforcement communities.

The Terrorist Screening Center, which was established by Homeland Security Presidential Directive/HSPD–6 on September 16, 2003, and became operational on December 1, 2003, consolidates terrorist watch lists. Several initiatives require additional resources in this area, including: continuing education of state and local law enforcement; more stringent screening at U.S. borders; and screening passengers on domestic and international flights without unduly delaying commerce or travel. To meet these increased requirements, this budget includes an additional 61 positions and $75 million for TSC, bringing total TSC funding up to $104 million.

Additionally, successful counterterrorism requires the cohesive intelligence, investigative, and prosecutorial efforts of many government agencies, including the federal, state, and local law enforcement agencies participating in the Joint Terrorism Task Forces (JTTF). A key to the success of the JTTF concept remains the melding of personnel from various law enforcement agencies into a single focused unit. Also, since the events of September 11, 2001, the U.S. Attorneys and the Department's Criminal Division have utilized the full cadre of anti-terrorism statutes to prosecute terrorist activities, including disrupting terrorist financing. Our budget seeks an additional $13.2 million and 91 positions to enhance these efforts, including funds to support the investigation of terrorism, primarily through the application of warrants under Foreign Intelligence Surveillance Act and Department-wide continuity of operations investments.

Additional Enhancements to Counterterrorism/Counterintelligence Infrastructure

A key element in our efforts to prevent future acts of terrorism is our ability to effectively share information about terrorists, criminal activity and threats to public safety within DOJ and with other federal, tribal, state and local law enforcement partners. To support this effort, this budget requests an additional $63.9 million and 5 positions for the Justice Information Sharing Technology (JIST) Program. This program will ensure that investments in information sharing technology are well planned and aligned with the Department's overall information technology strategy and enterprise architecture. JIST will also ensure that all DOJ components are able to operate in an interoperable environment, particularly with respect to preventing terrorist attacks on the United States.

This request also continues efforts to partner with state and local governments to maximize resources targeted to homeland security efforts. The fiscal year 2006 budget maintains this commitment and includes $90.3 million in directed investment grants for counterterrorism/counterintelligence efforts.

DRUG ENFORCEMENT

For the first time in a decade, drug use has decreased among 8th, 10th, and 12th graders. With extraordinary collaboration between federal law enforcement agencies, in the past two years the Department of Justice has crippled international trafficking organizations responsible for the U.S. drug supply. In fiscal year 2004, the Department dismantled 36 Consolidated Priority Organization Target (CPOT)-linked drug trafficking organizations and severely disrupted an additional 159 organizations

The fiscal year 2006 budget requests enhancements of $245.4 million for drug enforcement efforts: $172.5 million is for the Organized Crime Drug Enforcement Task Force (OCDETF) Program, the cornerstone of the Department's drug enforcement strategy, and $72.9 million is for the Drug Enforcement Administration (DEA), the Nation's sole law enforcement entity dedicated exclusively to drug enforcement. The request also includes an additional $32.6 million in new initiatives for DEA's Diversion Control Fee Account and $206.7 million in directed investments for the Office of Justice Programs.

Law enforcement agencies must pool their resources and expertise to target trafficking networks effectively. The Department's Drug Enforcement Strategy refocused the OCDETF Program to conduct coordinated investigations of major drug supply and money laundering organizations, targeting the entire infrastructure of these enterprises. For this successful program, the Department requests additional resources of $172.5 million and 517 positions. This increased level of funding will address staffing imbalances that exist within the U.S. Attorney workforce; increase FBI OCDETF drug resources that focus on major trafficking organizations; implement Phase II of a multi-year plan to increase the capacity of the U.S. Marshals Service to apprehend OCDETF fugitives; and provide for ongoing operations and maintenance of the OCDETF Fusion Center beyond fiscal year 2005.

This request also reflects the President's proposal to transfer the High Intensity Drug Trafficking Area (HIDTA) Program from the Office of National Drug Control Policy (ONDCP) to the Department of Justice, with funding provided through OCDETF at a level of $100 million including 5 positions. A smaller refocused HIDTA program, will enable law enforcement to target the drug trade in a manner that is strategic and complementary of the OCDETF Program and preserves HIDTA's most effective elements, such as intelligence sharing and fostering multi-agency law enforcement coordination.

Our fiscal year 2006 budget requests $72.9 million and 122 positions, including 76 new agents, for the DEA. The investments requested will provide permanent funding for DEA's Overseas Rightsizing plan; expand DEA's presence in Afghanistan, Central Asia, and the Middle East; enhance intelligence sharing to fully exploit, gather, analyze and share intelligence information; and maintain and upgrade DEA's intelligence capabilities. These resources will also strengthen the investigation of drug trafficking and money laundering priority target organizations through enhanced communications intercept capabilities and investigative technologies.

For DEA's Diversion Control program, our fiscal year 2006 request proposes an increase of $32.6 million and 97 positions to enhance investigations and enforcement actions against the illegal sale, use, or diversion of controlled substances. The request also proposes to transfer funding associated with the Chemical Program from the Salaries and Expenses account to the Diversion Control Fee Account to complete the transfer effectuated in the fiscal year 2005 Appropriations Act. Funding all Diversion Control Program activities from the Diversion Control Fee Account will help streamline the program's financial management activities.

The Department's fiscal year 2006 budget also includes $206.7 million in directed investments to assist state and local efforts in implementing drug enforcement programs and strategies. Among these directed investments are: a $19.3 million increase for residential substance abuse treatment; an additional $30.0 million for drug courts; a $19.4 million increase for southwest border drug prosecution; $20 million to continue methamphetamine lab cleanup; and $5 million to continue the prescription drug monitoring program.

VIOLENT CRIME ENFORCEMENT

Violent crime and firearms trafficking continue to be significant law enforcement problems throughout the Nation. The Administration is committed to reducing violence and getting gun criminals off the streets through the Project Safe Neighborhood (PSN) initiative. The Administration is requesting $379 million for PSN in 2006. PSN is a comprehensive strategy that brings together federal, state, and local agencies to reduce violent crime in our communities. Working with the Department, each community tailors the program to target local gun violence problems. The Ad-

ministration has also launched a companion initiative, the Violent Crime Impact Teams (VCIT), led by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF). VCIT, currently active in 15 cities, expands to 25 cities in the fiscal year 2006 budget.

Multiple Justice components play key roles in the Department's effort to reduce violent crime. The fiscal year 2006 request for PSN includes $154.2 million in new investments, including $136.2 million in additional funding for PSN initiatives such as Project ChildSafe, the National Criminal History Improvement Program, and State and Local Gun Crime Prosecution Assistance—all funded within the Office of Justice Programs. Funding also is requested under the PSN umbrella for ATF, the U.S. Attorneys, and the Criminal Division.

Since joining the Department in January 2003, ATF has become an integral part of the Department's efforts to reduce the violent use of firearms by criminals and gangs. Over 72 percent of ATF's resources ($666.0 million) are dedicated to firearms regulation and enforcement efforts, including licensing and inspection of federal firearms dealers, ballistics gun tracing, and criminal investigations of gun related crimes in partnership with a variety of federal, state and local law enforcement agencies. In addition, the United States Attorneys Offices (USAO) across the country, continue to develop strategies to make their communities safer. Critical to that goal is the aggressive prosecution of violent crimes, particularly those involving firearms. Another key component to helping to forge strong and effective partnerships with state and local law enforcement, is the Office of Justice Programs which provides grant funding that focuses on youth gun violence deterrence, firearms safety, criminal records improvements, and strategic planning.

LITIGATION

The Department's fiscal year 2006 request includes $31.6 million and 227 positions in new investments for litigation to enforce federal laws and represent the rights and interests of the American people, as well as $1 million in Office of Justice Programs directed investments. The Department serves as the Nation's chief litigator, representing the United States in court and enforcing federal civil and criminal statutes, including those protecting civil rights, safeguarding the environment, preserving a competitive market structure, defending the public against unwarranted claims, and preserving the integrity of the Nation's bankruptcy system.

The President's fiscal year 2006 budget request includes funding to fortify the U.S. Attorneys' immigration and intellectual crime prosecutions; the Criminal Division's ability to investigate and prosecute child sex exploitation, trafficking, and obscenity; the Civil Division's efforts to address immigration litigation; and the Environment and Natural Resources Division's litigation needs associated with tribal trust cases.

Key investments include: $1.9 million and 36 positions for additional paralegals to narrow the gap between the private sector industry average and that found in the U.S. Attorneys' Offices; $3.7 million and 46 positions to ensure there is sufficient U.S. Attorney presence to meet the steadily increasing caseload generated by increased Immigration and Customs Enforcement cases; $5 million and 58 positions in U.S. Attorney and Civil Division resources for Health Care Fraud investigations and prosecutions; and $1 million and 11 positions to expand the Computer Crime, High Tech and Intellectual Property program.

Between fiscal year 2001 and fiscal year 2004, the Civil Division's Office of Immigration Litigation (OIL) workload tripled to approximately 15,000 cases and will likely surpass 21,000 by fiscal year 2006 due to the avalanche of appeals by aliens challenging decisions to detain, deport, exclude, and remove them. By fiscal year 2006, the attorney workload is projected to reach 186 cases—a number that is impossible for any attorney to handle effectively. Inadequate resources to defend these cases could result in adverse judgments, hindering the government's ability to pursue a consistent, unified strategy for upholding immigration enforcement actions and, consequently, undermining our national security. The fiscal year 2006 budget requests $5.8 million and 58 positions to protect our Nation by excluding and deporting those aliens who pose a threat to national security and aliens who otherwise lack entitlement as defined by the Immigration and Naturalization Act. The request also includes enhanced resources for the Civil Division's Spent Nuclear Fuel Litigation to provide automated litigation support for the sixty-six cases filed by nuclear utility companies against the Department of Energy.

The fiscal year 2006 budget also requests $7.4 million and 18 positions to defend the United States in lawsuits filed by Indian Tribes for allegations regarding the management of Tribal assets by the Bureau of Indian Affairs. The United States' potential exposure in these cases is more than $200 billion. Adequate resources are

necessary to limit exposure and establish proper precedent for the United States. These cases differ from lawsuits brought against the United States by individual Tribal members, like Cobell, due to the extent of the potential exposure and the amount of document management/production required. The document management is astronomical: approximately 55 million pages of documents need to be reviewed. Thus the requested increase includes $6.1 million to address these document management-related expenses.

CRIMES AGAINST WOMEN AND CHILDREN AND OBSCENITY

The Violence Against Women Act has made a critical difference in the lives of countless women and children. During this Administration, the Office on Violence Against Women (OVW) has awarded nearly $1.25 billion in grants and cooperative agreements to enable communities to increase their efforts in addressing violence against women and to support and enhance services for victims. To build on these efforts this budget requests a $363 million total investment for Violence Against Women Act programs, including the Office on Violence Against Women.

The Department's budget reflects its commitment to protect the most defenseless and youngest victims from human trafficking and other forms of exploitation. During the last year, the Department worked aggressively with other law enforcement agencies to target and prosecute a large variety of offenders posing grave threats to children, including large international rings of organized and predatory child molesters and commercial producers and sellers of child sex abuse images. Through these efforts, more than 150 child victims were rescued. As the Nation's expert in the prevention and prosecution of child exploitation and obscenity, the Department's Criminal Division attorneys prosecute defendants who have violated federal child exploitation and obscenity laws and also assist the 94 United States Attorney Offices in investigations, trials, and appeals related to these offenses. Additionally, the FBI's Innocent Images National Initiative (IINI) identifies, and investigates sexual predators who use the Internet and other online services to sexually exploit children, identifies and rescues child victims, and establishes a law enforcement presence on the Internet as a deterrent to subjects that exploit children. This budget increases funding by $10.4 million for the Justice Department's efforts to fight child pornography and obscenity, including the Criminal Division programs, the FBI's IINI and Child Obscenity Enforcement efforts, and the Internet Crimes Against Children Task Forces.

In fiscal year 2004, the FBI located 300 missing children, shut down 2,638 child pornography websites or web hosts, and assisted in obtaining 881 convictions/pretrial diversions for crimes against children via online computer usage. This budget requests an increase of $9.1 million and 85 positions to continue these efforts.

The Office of Justice Programs plays a significant role in reducing crimes against children through training and technical expertise to our state and local law enforcement partners and public safety entities. Since the President announced an administration effort to expand and coordinate the AMBER Alert network in October 2002, it has been credited with the recovery of over 150 children, or over 80 percent of the188 recoveries since the initiative began in Texas in 1996. In 2005 the Amber Alert plans were established in all 50 states marking a milestone in our efforts to prevent child abductions. This budget seeks $5.0 million to maintain this system.

STATE AND LOCAL ASSISTANCE

State and local law enforcement departments are critical partners in the war against terror and the fight against crime. Fiscal year 2006 budget selectively maintains and grows effective programs with over $1.5 billion in grant assistance to state and locals agencies, including $185.3 million to strengthen communities through programs providing services such as drug treatment, $90.3 million to fight terrorism, and $335 million to combat violence. This includes enhancements to grant funding provided under Project Safe Neighborhoods; $235.2 million for law enforcement technology, including funding to continue and enhance the Administration's DNA initiative; and $92.5 million to support drug enforcement, including funding to continue and expand the Southwest Border Drug Prosecution Program.

Programs targeted to helping strengthen our community remains a priority for the Department of Justice. A total investment of $185.3 million in fiscal year 2006 provides $15 million to increase support for the Administration's offender re-entry program, which includes the participation of the Departments of Labor and Housing and Urban Development. An increase of $19.3 million is requested to assists states and units of local government in developing and implementing residential and substance abuse treatment programs. An increase of $29.9 million is requested for the

drug courts program, which will result in a 2 percent improvement in the graduation rate from the drug courts program as compared to fiscal year 2005 estimates.

Our request proposes the establishment of a program to provide $20 million in fiscal year 2006 ($50 million over three years) for training to private defense counsel and public defenders, state and local prosecutors, and state judges to improve the competency of all participants connected with the trial of state capital cases.

Efforts to improve our ability to combat terrorism would not be a success without our state and local partners. The fiscal year 2006 request invests $90.3 million in state and local programs to combat terrorism including a $4.5 million increase for the Regional Information Sharing System; $14 million for state and local anti-terrorism training; $7 million to develop tools and approaches to improve the ability of state and local first responders to detect and effectively respond to terrorist attacks; $16 million to fund the USA Freedom Corps program; and a total of $6.2 million for the National Criminal Intelligence Sharing Plan –the state and local complement to the Department's Law Enforcement Information Sharing Program.

A $227.4 million investment is also proposed to assist state and local communities in combating other violent crimes, including $10.2 million to prevent prison rape and prosecute persons committing it. The Department is committed to upholding the rights and to defending human dignity of all citizens, including prisoners.

The fiscal year 2006 budget requests an additional $72.7 million to continue efforts to reduce convicted offender and crime scene backlogs, strengthen the capabilities of labs, fund DNA research and development projects, provide specialized training to law enforcement and lab and medical personnel, pay for programs and educational materials that employ DNA technology to identify missing persons, and to fund a post-conviction DNA testing program. Also included in the fiscal year 2006 budget is a $29.9 million total investment in the Bulletproof Vests Program.

JUDICIAL PROTECTION, DETENTION AND INCARCERATION

As a result of aggressive law enforcement policies targeting terrorism, violent crime, immigration violations, and drug crimes, as well as the increases in the number of FBI and DEA agents, the number of criminal suspects appearing in federal court continues to grow, as does the number of individuals ordered detained and ultimately incarcerated. The fiscal year 2006 budget request provides significant resources needed to improve courtroom security and the detention and incarceration of those accused or convicted of violent crimes. During fiscal year 2004, the Nation's federal prison population rose 4.3 percent, by 7,396 inmates. At the same time, the federal prisoner detention population rose 11.8 percent, increasing by approximately 5,200 detainees on a daily basis. The request provides additional resources for the Bureau of Prisons and Office of the Detention Trustee to manage this growth, including activation costs for three new facilities and two expansions of existing facilities. The fiscal year 2006 DOJ budget requests $509.6 million in additional resources in these areas

The U.S. Marshals Service (USMS) ensures that the federal justice system operates effectively and securely by providing judicial and courtroom security to deter and respond to threats and protect federal judges, court personnel, witnesses and other participants in federal judicial proceedings. This budget will provide the resources needed for the Department to continue to ensure that no judicial proceedings are interrupted due to inadequate security as well as to continue to identify, assess, and respond to the threats against court personnel and property; enhance the physical security of federal courthouse facilities; and provide for the long-term protection of federal witnesses and their families.

Additionally, the USMS has primary jurisdiction to conduct and investigate fugitive matters involving escaped federal prisoners; probation, parole and bond default violators; warrants generated by DEA investigations; and certain other related felony cases. In fiscal year 2004, the USMS apprehended 39,000 federal felons—more than all other law enforcement agencies combined. In addition, working with authorities at the federal, state, and local levels, USMS apprehended 79,740 fugitives. This budget provides $790.2 for the USMS, which is $42.6 million and 114 positions over the 2005 enacted level.

For the Bureau of Prisons (BOP), our fiscal year 2006 budget seeks an increase of $148 million and 1,007 positions, which includes $37.2 million for the subsistence cost of the increasing inmate population. The BOP projects that it will receive 4,269 additional inmates between fiscal year 2005 and fiscal year 2006. These resources will enable the BOP to meet the marginal costs, $8,712 per inmate, of providing security, food, medical care, clothing, education, and other costs associated with the population increase. An increase of $85.0 million and 1,002 positions is also included to begin the activation process for 3 newly constructed facilities, activate a 50 cell

expansion to the existing Special Housing Unit at United States Penitentiary Florence, Colorado and to begin the activation process for a 362 bed low security housing unit at Federal Correctional Institution (FCI) Sandstone, Minnesota. In addition, $19.8 million and 5 positions are requested to begin the process to obtain 1,600 additional beds in contract facilities to house low security and female inmates for 6 months in fiscal year 2006. In addition, the budget requests the rescission of $314 million in unobligated prison construction balances. The funds are associated with prisons not scheduled to activate until 2009 or beyond. During 2006, the Bureau of Prisons will undertake a thorough review of all of its existing minimum and low security facilities to evaluate the potential of upgrading or modifying these prisons to house higher security inmates, where the inmate crowding level is the highest. BOP remains committed to contracting out for low and minimum security inmates which currently makes up 58 percent of the federal inmate population. Lastly, the BOP request seeks $6.0 million to establish a residential re-entry program at 6 institutions that will build partnerships with faith based and community organizations.

For the Office of the Federal Detention Trustee, our request reflects an additional $347.4 million to house USMS detainees in state, local and private facilities. The number of federal prisoners detained is expected to increase 14.9 percent over fiscal year 2005, resulting in an average daily population of over 60,000 detainees compared to approximately 27,000 three years ago. This enhancement will ensure the availability of adequate, cost-effective detention capacity for the anticipated jail days that will be spent in state, local or private facilities.

Lastly, with the recent violence perpetrated in courthouses in the southeast and midwest, I have directed that a review of judicial security measures be undertaken so the Department, as well as state and local law enforcement, can benefit from a compilation of best practices from across the nation.

MANAGEMENT AND STEWARDSHIP IMPROVEMENTS

In his February 2nd State of the Union Address, the President underscored the need to restrain spending in order to sustain our economic prosperity. As part of this restraint, it is important that total discretionary and non-security spending be held to levels proposed in the fiscal year 2006 budget. The budget savings and reforms in the budget are important components of achieving the President's goal of cutting the budget deficit in half by 2009 and we urge the Congress to support these reforms. The fiscal year 2006 budget includes more than 150 reductions, reforms, and terminations in non-defense discretionary programs, of which 1.88 billion affect DOJ programs. The Department wants to work with the Congress to achieve these savings

As part of our efforts to improve management and stewardship, the Department continues to evaluate its programs and operations with the goals of achieving both component-specific and departmental economies of scale, increased efficiencies, and cost savings/offsets to permit us to fund initiatives that are of higher priority. The Department is engaged in a multi-year process to implement a wide range of management and information technology improvements that will result in substantial savings. The cost absorptions and crosscutting efficiencies identified in this budget impact virtually every component in the Department. Additional investments in management and information technology improvements, such as e-gov, e-training and e-travel initiatives, will ensure all DOJ components are able to function in an interoperable environment, particularly with respect to preventing terrorist attacks on the United States.

DOJ Financial Management

The Department is committed to continuous improvement in financial management in order to maximize every dollar that is provided to us. The fiscal year 2006 budget requests $33.0 million and 6 positions to continue support for the Unified Financial Management System (UFMS), including hardware and software acquisition, integration and implementation, and project management activities. The annual financial audits of DOJ and its components have found fault with several of the seven core financial management systems in use at DOJ. Continuing the UFMS initiative will result in a significant improvement to the efficiency and integrity of our financial and accounting system.

DOJ Diversity

The fiscal year 2006 request seeks $.8 million to enhance attorney recruitment and retention through an enhanced student loan repayment program and to implement an automated attorney hiring system. The Department is committed to casting the widest net to attract the most qualified and diverse applicants.

CONCLUSION

In closing, I would like to thank the members of the subcommittee for your recent actions on the fiscal year 2005 Supplemental. The funds provided for the Department of Justice are critical to our efforts both domestic and abroad.

Chairman Shelby, Senator Mikulski, Members of the Subcommittee, I have brought before you today the resources necessary to carryout the Department's priorities for fiscal year 2006. I am honored to testify before you and look forward to the days and months ahead working with you on this budget proposal and other issues.

Thank you. I would be pleased to answer any questions you might have.

PREPARED STATEMENT OF CARL J. TRUSCOTT, DIRECTOR, BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES, DEPARTMENT OF JUSTICE

Mr. Chairman, Senator Mikulski, and distinguished members of the Subcommittee: thank you for this opportunity to submit a statement about the accomplishments of the men and women of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and discuss the President's fiscal year 2006 budget for the ATF. We are working together to protect America. Our agents, inspectors/investigators, administrative, professional, and technical personnel have earned renown and respect for their contributions to the Department of Justice and to law enforcement. I am honored to lead such capable and motivated colleagues, and to serve our great Nation as the Director of ATF.

I appreciate very much the support the Subcommittee has given to ATF and the interest the Subcommittee has demonstrated in ATF's missions and programs. With your support during fiscal year 2005 appropriations, ATF received funding and positions for the Safe Explosives Act (SEA) and explosives enforcement, Project Safe Neighborhoods (PSN) and anti-gang efforts, the National Tracing Center (NTC), and relocation of the Federal Licensing Center to West Virginia.

The President's budget request for fiscal year 2006 builds on your fiscal year 2005 investment with $30.3 million to expand the number of Violent Crime Impact Teams (VCIT) targeting the most violent criminals in specific areas within selected cities and $6 million to develop the Terrorist Explosive Device Analysis Center (TEDAC) database which will record, inventory, and catalog improvised explosive devices being used in Iraq and Afghanistan. These investments are in direct support of ATF's core missions.

As Director, I lead our efforts to reduce violent crime, prevent terrorism, and protect the public. Thanks to the leadership and support of this Committee, and through our dedicated work, the men and women of ATF are improving the lives of Americans. Your investment, and our efforts, produce real results: safer neighborhoods, where all of us, including children and senior citizens, can live without fear.

Since being sworn in as Director of ATF last May, I have visited all 23 ATF field divisions. I have talked with special agents and inspectors/investigators who are: taking violent criminals, including gang members, off the streets; preventing the illegal diversion of firearms; ensuring the security and accountability of explosives and firearms commerce; investigating bombings and thefts of explosives; solving arsons, through investigation and research; investigating alcohol and tobacco diversion schemes; and sharing information and intelligence with our law enforcement partners.

FIREARMS

ATF continues to fight violent crime on the streets of America. We enforce Federal firearms laws and provide extensive support to Federal, State, and local law enforcement officials in their fight against crime and violence.

ATF agents investigate a broad range of firearms violations that can be generally divided into three categories: investigations of those persons who are prohibited by law from possessing firearms, such as felons, illegal aliens, and drug traffickers; investigations of firearms diversion; and investigations of persons possessing those firearms that are generally prohibited, such as machineguns and sawed-off shotguns.

From these types of investigations, ATF agents concentrate on illegal firearms traffickers and the diversion of firearms out of lawful commerce into the hands of criminals. Firearms trafficking investigations can be complex and time-consuming. They can involve illegal straw purchases of firearms for those unable to legally possess firearms (with or without the complicity of a Federal firearms licensee, or FFL),

illegal dealing at gun shows or other locations, robberies of gun stores, and thefts from interstate shipments.

ATF combines state-of-the-art technology and effective partnerships into an Integrated Violence Reduction Strategy, or IVRS. We are a major participant in the Administration's PSN initiative, which began in 2001. This cooperative program builds upon the enforcement efforts of the past, and includes the use of advanced technology and effective sharing of intelligence and information. Law enforcement, prosecutors, and community leaders work together on deterrence and prevention. Agencies develop focused enforcement strategies to investigate, arrest, and prosecute violent offenders, prohibited possessors of firearms, domestic and international firearms traffickers, and others who illegally attempt to acquire firearms. ATF, local law enforcement, U.S. attorneys, and local prosecutors evaluate which set of laws and circumstances can best be employed against the violators and/or prohibited possessors and seek the most appropriate venue for firearms prosecution. Under PSN, the number of Federal firearms cases filed increased 76 percent between fiscal year 2000 and fiscal year 2004. In fiscal year 2004, ATF opened 29,440 firearms investigations, and during the same timeframe, there were over 7,000 convictions.

Violent Crime Impact Teams

In June 2004, former Attorney General Ashcroft, Deputy Attorney General Comey, and I announced the VCIT initiative, a new program to reduce violent crime in 15 targeted communities. Through VCIT, ATF-led teams work with local law enforcement to identify and arrest the most violent offenders in each area. The selected communities are: Albuquerque, New Mexico; Baltimore, Maryland; Chattanooga, Tennessee; Tampa, Florida; Miami, Florida; Richmond, Virginia; Greensboro, North Carolina; Tulsa, Oklahoma; Pittsburgh, Pennsylvania; Las Vegas, Nevada; Columbus, Ohio; Philadelphia, Pennsylvania; Los Angeles, California; Tucson, Arizona; and the Washington, DC/Northern Virginia area.

ATF-led VCIT teams in these cities bring the targeted area's Federal, State, and local law enforcement officials together. Each team creates an individualized strategy, then works together to remove those responsible for violent crime. I can tell you that VCIT is working: in our first 8 months of operation, 3,100 State and Federal arrests were made, and 3,700 firearms were recovered. Civic leaders and law enforcement officials have praised VCIT's positive impact on their communities. News reports credit VCITs with contributing to a decrease in homicides, as has occurred in Greensboro, Tulsa, and Columbus, among others. For example, a November report by the Albuquerque Journal stated that the VCIT contributed to a 23 percent decrease in the homicide rate in Albuquerque alone, compared with the same period last year.

Anti-Gang Efforts

We have developed expertise in working against criminal groups, particularly gangs, and this is recognized by the Department of Justice (DOJ). ATF played a prominent role in the development of the Department's Gang Strategy Report for the House Appropriations Committee. This reflects our years of experience in working against violent gangs, including outlaw motorcycle organizations active in firearms and narcotics trafficking. In fact, ATF oversees a comprehensive gang strategy, combining education, prevention, training, and a variety of criminal enforcement tactics to take violent gang members and their organizations off the streets. ATF shares investigative information on gangs nationally through its case management system. This system allows every agent and task force member the ability to access information about other cases in order to coordinate efforts. ATF recommended more than 5,000 gang members and their associates for prosecution during the past 5 years (2,000 of them during fiscal year 2004 alone) for charges including firearms violations, continuing criminal enterprise violations, Racketeer Influenced Corrupt Organization Act violations, and arson and explosives violations. In the past 2 years, we also traced more than 11,000 firearms linked to gang activity, and initiated more than 1,500 cases involving gang members participating in firearms trafficking.

We are fighting gangs with proactive efforts as well as enforcement actions: the Gang Resistance Education And Training (G.R.E.A.T.) Program has been presented to more than 3.8 million middle school students since its inception in 1992. And thanks to a new agreement with Boys and Girls Clubs of America, ATF's G.R.E.A.T. program is being used to help young people make positive decisions and resist negative influences. In this way we are not just working to deter crime—we are working to prevent it.

National Tracing Center

ATF's National Tracing Center (NTC) is the largest operation of its kind in the world. This facility conducts traces of firearms recovered at crime scenes for any Federal, State, local, or international law enforcement agency. In fiscal year 2004, the NTC traced over 250,000 firearms. The NTC stores information concerning multiple sales of firearms, suspect guns, and firearms with obliterated serial numbers, and is also the only repository for all records of FFLs that have gone out of business. The NTC provides ATF personnel and other law enforcement agencies with crime gun data specific to their geographic areas, and helps them identify emerging trends and patterns in firearms-related criminal activity.

The NTC has established and provides support to four Regional Crime Gun Centers. These centers are located in Washington, DC; Chicago; New York; and Los Angeles. Each provides focused analysis of crime gun trace information in these major metropolitan areas for ATF and local partners from other Federal, State, and local law enforcement agencies to reduce firearms-related violent crime within their regions. The information gathered and analyzed through these centers and the Crime Gun Analysis Branch (CGAB) provides law enforcement with specific leads through the use of firearms tracing and geographic information to discern indicators of trafficking activity within a city that has a high violent crime rate involving gangs and illegal use and possession of firearms. This allows law enforcement to efficiently apply resources to combat violent firearms activities.

Another NTC program is called Access 2000. This initiative benefits both ATF and our industry partners. Servers supplied by ATF have been installed at 36 manufacturers and major wholesale distributors, all of them FFLs, who have partnered with ATF in this effort. FFLs enter firearms information into the servers; the NTC connects to these servers remotely and can obtain information on a firearm's disposition in the course of a crime gun trace. This program substantially reduces administrative costs to the FFL and the time it takes ATF to trace a firearm.

In order to reduce violent crime, ATF will continue to develop and employ technology that will help law enforcement at all levels. Through the National Integrated Ballistic Information Network (NIBIN) Program, ATF has installed automated ballistic comparison equipment at 230 sites in participating forensic laboratories in the continental United States and its territories, giving these State and local law enforcement agencies the opportunity to identify ballistic links between crimes not otherwise known to be connected.

EXPLOSIVES

In addition to our investigative efforts against firearms trafficking and violent firearms crime, ATF agents investigate bombings, unlawful distribution of explosives, thefts of explosives, and other violations of explosives laws. ATF inspectors/investigators ensure that the manufacture, importation, and commerce in firearms and explosives are conducted lawfully. Other programs combine advanced technology with ATF's years of expertise, providing critical intelligence for Federal, State, and local law enforcement to use in investigating fire and explosion incidents in their areas.

As part of the Department of Justice's efforts to ensure the coordination of explosives investigations, explosives information sharing, and other related explosives matters amongst its law enforcement components, the Department of Justice reviewed the explosive programs of ATF, FBI, and others and on August 11th, issued a policy memo outlining roles and responsibilities as they relate to explosives issues. Former Attorney General Ashcroft's policy memorandum regarding coordination of explosives investigation and related matters helped to clarify the responsibilities of ATF.

—The Attorney General mandated that ATF would control the investigation of all explosives incidents except those related to terrorism. I am honored by the confidence that the Attorney General placed in ATF when he made this decision, and I note that approximately 98 percent of the bombings in America are unrelated to terrorism. In instances of terrorism, ATF stands ready to assist with Department-wide efforts.

—The Attorney General also tasked ATF to maintain all DOJ arson and explosives databases currently maintained by other DOJ components. Our state-of-the-art system for documenting arson and explosives incidents, known as the Bomb Arson Tracking System or BATS, has become the DOJ standard.

—Further, his decision mandated the consolidation within ATF of all budget, curriculum, teaching, and scheduling functions related to post-blast explosives training for Federal, State, local, and international entities.

Mr. Chairman, I believe that this decision will be responsible for significant financial efficiencies.

ATF special agents work with State and local law enforcement throughout all aspects of bombing and explosion incidents, from the post-blast recovery of evidence through the subsequent investigation. ATF has explosives and arson groups nationwide, each consisting of special agents, including certified fire investigators (CFIs) and certified explosives specialists (CESs), as well as State and local police or fire personnel. These ATF special agents are dedicated full-time to investigating explosives and arson incidents and violations. In fiscal year 2005, the Congressional appropriation directed ATF to form four specialized explosives groups. These groups are enhancing our ability to prevent criminal acts involving explosives, respond to criminal acts, plan for special events, and assist first responders by adding special agents trained in rendering improvised explosive devices (IEDs) safe.

Some ATF special agents receive even more intense explosives training than the substantial amount received in Special Agent Basic Training. Special agent CESs are among the most experienced, best-trained explosives experts in the Federal Government. They provide explosives crime scene examinations, lend expertise in support of security measures implemented at special events, and assist ATF's law enforcement counterparts at the Federal, State, local, and international levels in their efforts to investigate explosives-related incidents. The CESs are highly trained in all aspects of explosives handling, instruction, identification, demonstration, and destruction. Because of their proficiency in explosives investigation, CESs are used regularly as instructors for explosives-related training at the International Law Enforcement Academies in Budapest, Hungary; Bangkok, Thailand; and Gaborone, Botswana. They have also instructed post-blast investigation techniques for foreign law enforcement officers in South American, Central American, and Eastern European countries, and are currently providing this instruction in supporting coalition forces in Iraq.

ATF investigates each and every report of theft or loss of explosives in the United States in order to ensure that these explosives do not fall into the hands of terrorists or criminals. When explosives are used for criminal purposes, ATF brings the full weight of its explosives programs and investigative assets to the task of identifying and bringing the perpetrator to justice. On July 6, 2004, a theft of explosives occurred from a San Mateo County, CA, explosives storage facility used by law enforcement. ATF immediately responded to the crime scene and began an investigation. Working with the California Highway Patrol, the Alameda County Sheriff's Office, the Hayward Police Department, the Union City Police Department, the Oakland Police Department, and others, the stolen explosives were recovered and ATF arrested four individuals on charges relating to the theft, possession, and distribution of explosives.

ATF has other experts in the field of explosives. ATF's explosives enforcement officers (EEOs) provide technical assistance and support in explosives matters. These bomb technicians have between 12 and 35 years of experience in explosives and bomb disposal. EEOs render explosive devices safe, disassemble explosive and incendiary devices, prepare destructive device determinations, and render expert testimony in support of such determinations in State and Federal criminal court proceedings. EEOs also provide expert analysis and onsite investigative technical assistance at bombing and arson scenes and scenes where explosions of an undetermined nature have occurred. They provide assistance and training in all aspects of explosives handling, usage, and destruction; threat vulnerability assessments; and all other explosives-related matters for ATF and State and local law enforcement agencies. EEOs use a full range of bomb disposal equipment, such as explosives-actuated disrupters; radiographic (x-ray) equipment; personal protective equipment (bomb suits); and robotic equipment, including the All-purpose Remote Transport System (ARTS), which is designed to remotely disrupt car and truck bombs that are too large to disarm by traditional methods. ATF is one of the few Federal agencies with ARTS capability.

Maintained within ATF's Arson and Explosives National Repository (AENR) is this country's most comprehensive set of data describing fire/explosion incidents. The incidents are divided into specific categories such as targets, locations, motives, and victims. Trends, patterns, and criminal methodologies, as well as the identities of known previous offenders, can be derived from the data set. Most importantly, ATF agents or other law enforcement officials can contact the Repository to query the construction characteristics of an explosive device, and match the device to others with similar characteristics.

ATF is now using the latest information management technology to make case information available to law enforcement nationwide through BATS. This program facilitates and promotes the collection and dissemination of fire, arson, and explosives

incidents and information among participating agencies. Law enforcement agencies and members with established National Crime Information Center access can access BATS via personal computer in a secure Internet environment. End users are able to enter their case information and query information entered by others, both locally and across agencies. BATS benefits its users by providing real-time incident-based information, records management functions, and advanced features, such as spatial representation of incidents via an integrated Geographical Information System—all within a secure law enforcement environment. Eventually, the wealth of case information available through the Repository will also be accessible through BATS.

ATF is sharing its expertise by training Federal, State, local, military, and international bomb technicians and investigators in explosives disposal and investigation techniques at the National Center for Explosives Training and Research (NCETR) at Fort A.P. Hill, Virginia. This course was developed in response to data showing that more bomb technicians were injured or killed during explosives disposal operations than when performing render safe procedures on explosive devices. ATF offers numerous advanced courses related to explosives disposal and post-blast investigation techniques at the NCETR, which was authorized in the Homeland Security Act of 2002. Since ATF began holding training classes at Fort A.P. Hill in 2000, we have provided training to over 4,000 Federal, State, local, and international bomb technicians and investigators. In cooperation with the U.S. Army, we are currently training Army explosives units prior to their deployment to Iraq. In addition, ATF provides post-blast training to members of the Department of State, the Naval Criminal Investigative Service, and the Air Force Office of Special Investigations. This facility will include a permanent classroom facility and an advanced explosives research and training range for the study of various explosive devices. This dedicated facility will advance our expertise in the investigation of bombings and explosives-related crimes. The NCETR is ideally located close to the Washington, DC, area, but remote enough to offer unlimited opportunities for expansion and enhancement as the needs of the Department require it.

ATF has found a unique niche with its delivery and cosponsorship of an underwater explosives recovery course for State and local bomb technicians and divers. ATF worked with the Edmond, Oklahoma, Police Department to develop the course, which was established in response to the growing number of investigations in which evidence either directly or indirectly ended up in a body of water. The TWA Flight 800 investigation in July 1996 further justified the need to train law enforcement/bomb squad personnel to recover fire- and explosives-related evidence.

ARSON

One recent example of ATF's investigative work is the arson committed in December 2004 in a neighborhood in Charles County, Maryland. Our field agents investigated this crime scene, where 26 homes were damaged, ten of which were destroyed entirely. I visited this enormous and complex crime scene, and I was stunned by the devastation. ATF's state-of-the-art Fire Research Laboratory is analyzing the evidence gathered. By investigating and solving these crimes, we are also helping to prevent future arsons.

ATF's arson enforcement efforts are an integral part of ATF's overall violent crime reduction strategy, and are directed toward preventing the crime of arson, providing effective post-incident response, and reducing the community impact of crimes involving fire. The long-term, strategic goal of the arson program is to provide effective investigative and technical expertise, rapid response, assistance, and state-of-the-art training to reduce the impact of violent crimes that involve fire. ATF investigative efforts are generally focused on arsons of Federal interest, including those at houses of worship, commercial buildings, and reproductive health clinics. In fiscal year 2004, ATF opened approximately 2,000 arson investigations. I would like to address some of ATF's arson program areas and assets, including the CFI program, the ATF Church Arson Task Force, ATF's response to animal-rights extremists and environmental-rights extremist fires, the ATF Fire Research Laboratory, and others.

After fire departments extinguish the flames, the work begins for cause and origin investigators who must determine whether the fire was intentionally set and whether a crime was committed. The agents participating in ATF's CFI program are at the forefront of fire investigation. The special agents who participate in this program are the only federally trained and federally certified cause and origin investigators in the Federal Government. These CFIs are able to qualify as expert witnesses, that is, opinion witnesses, in fire cause and origin determinations. Each CFI has participated in hundreds of investigations and has undergone hundreds of hours of training to qualify in giving expert testimony. The CFI program is the only one of its type in Federal law enforcement and has received national and international

acclaim. ATF's 107 CFIs are based in 36 States and provide support to the entire United States and its territories. ATF CFIs responded to over 1,200 fires in fiscal year 2004.

ATF also investigates bombings and crimes of arson by environmental and animal rights extremists using explosives and fire as their weapons, such as the Animal Liberation Front (ALF) and the Earth Liberation Front (ELF). ATF estimates that property damage committed by those groups in the past several years exceed $65 million. Because of ATF's expertise in these areas, we have made these investigations a priority and will continue to do so. In the last several years, we have initiated about 100 explosives and arson investigations believed to be linked to ALF and ELF. In the past, many of the fires set by these extremists have been set utilizing a particular methodology, and the Arson and Explosives National Repository (AENR)—which has kept records and intelligence on these acts for decades—stands ready to assist fire investigators in determining the methodology used in future incidents, linking events, and identifying suspects.

One of the most painful and destructive crimes that ATF investigates is arson directed at houses of worship. In fiscal year 2004, ATF responded to approximately 210 such fires and explosives incidents. Out of that number, 88 of the fires were determined to be incendiary: that is, set by human hands. Of the 210 fires, ATF conducted the origin and cause investigation at 61 predominantly African-American churches, six Hispanic churches, six temples, and six mosques.

ATF works to prevent future incidents by documenting information such as why an incident happened and what human factors were involved. Lending additional credence to ATF's scene capabilities is the expertise afforded by its fire protection engineers (FPEs), who are ATF's experts in fire reconstruction and engineering analysis. Through their contributions, lessons can be learned and safeguards can be implemented if fire spread and fire progression are analyzed and documented properly (e.g., fatalities that are due to smoke and heat). These FPEs also provide technical advice and support to U.S. Attorneys and testify as expert witnesses in the prosecution of criminal cases.

One of ATF's newer fire investigation resources is the Fire Research Laboratory (FRL), a one-of-a-kind fire test center with the capability of replicating initial fire scenarios approaching a quarter acre in size, to scale, and under controlled conditions allowing for detailed analysis. This facility is the only such facility in the United States that is dedicated to providing case support in fire investigations using forensic fire science, and the facility will support ATF's investigative requirements well into the future.

ATF has profilers assigned to the National Center for the Analysis of Violent Crime at the FBI Academy in Quantico, Virginia. The ATF profilers analyze behavior characteristics of serial arsonists and bombers and provide investigative suggestions to case investigators. Although specializing in bombings and arsons, ATF profilers work on other violent crimes such as murders. ATF recently added a position of geographic profiler to its resources. This position is the first of its kind in the United States. Geographic profiling is a relatively new investigative tool being applied in serial crime investigations.

CRIMINAL DIVERSION OF ALCOHOL AND TOBACCO

ATF's goal as it relates to alcohol and tobacco diversion is to reduce violent crime and prevent terrorism by preventing the illegal domestic and international trafficking of alcohol and tobacco products. To accomplish this goal, ATF is enforcing laws that prohibit the diversion of alcohol and tobacco products, and providing Federal, State, and local agencies with the tools needed to identify trafficking schemes. From the hijacking of tractor trailer loads and cargo containers of cigarettes, to the armed robbery of tobacco wholesalers and distributors, to the smash and grab techniques at the retail level, ATF has successfully investigated and prosecuted the criminals involved.

ATF is engaged in ongoing efforts to reduce the rising trend of the illegal diversion of alcohol and tobacco products by criminal gangs, organized crime, and terrorist groups. Current investigations have identified several instances of terrorist groups forming alliances with tobacco traffickers to generate funding to support their organizations and activities. We have built complex cases against individuals and organizations that have used proceeds from the illegal sales of cigarettes to fund organized crime and terrorism, including those involving the channeling of funds to Hezbollah, and these cases have been successfully prosecuted. ATF also works in partnership with other Federal, State, and local agencies to enforce the laws under their jurisdiction. The investigation of alcohol and tobacco crimes is

unique in that the penalties are not commensurate with the profits that can be made.

INDUSTRY OPERATIONS: ATF'S DUAL ROLE

ATF's role in Federal firearms and explosives laws, with both regulatory and enforcement responsibilities, is unique. In addition to our investigative efforts against firearms trafficking and violent firearms crime, ATF agents investigate bombings, unlawful distribution of explosives, thefts of explosives, and other violations of explosives laws. ATF inspectors/investigators ensure that the manufacture, import, and sale of firearms and explosives are conducted lawfully. Through education and industry partnerships, we work to keep firearms and explosives out of the wrong hands.

According to the Institute of Makers of Explosives, over 5.5 billion pounds of commercial explosives are used every year in the United States in mining and other applications. ATF ensures compliance with explosives laws and regulations through its explosives regulatory program. The purpose of this program is to protect interstate and international commerce against interference and interruption by reducing hazards to persons and property arising from the misuse and unsafe or insecure storage of explosive materials.

This is accomplished through the explosives field inspection effort; through the development, implementation, and evaluation of regulatory enforcement procedures and policy; through the screening of prospective and current explosive licensees/permittees and their employees; and through regular and open communication with the explosives industry and its representatives. ATF's field inspection program includes the thorough review of records and inventory to ensure product accountability, as well as the visual inspection of explosives storage facilities to ensure safe and secure product storage to prevent theft and misuse of explosives. Inspectors/investigators verify that explosives storage magazines meet Federal construction and location requirements, including the required distance from explosives storage areas to roads or residential areas.

Approximately 580 of ATF's inspectors/investigators are assigned to the field, and are responsible for inspections of FFLs and Federal explosive licensees (FEL). They are responsible for working with the population of 106,000 FFLs and over 12,000 FELs.

The Safe Explosives Act (SEA) enhanced ATF's unique statutory mission of regulating the explosives industry. With the passage of this Act in 2002, ATF assumed a significant additional workload such as continued issuance of renewal licenses/permits for 12,000 explosives-related businesses; increased inspection efforts and more thorough license application processing, including background checks for all employees who possess explosives. Further, the SEA decreed that ATF physically inspect every new explosives licensee applicant to ensure public safety.

ATF's field inspectors/investigators are also responsible for firearms licensee inspections. Day in and day out, these inspectors/investigators ensure that FFLs follow appropriate guidelines and procedures. Their work truly makes America safer by helping to prevent the acquisition of firearms by prohibited persons. Further, by promoting proper recordkeeping and business practices, they help ensure effective firearms tracing in critical investigations by all of the Nation's law enforcement community. Cooperative programs such as "Don't Lie for the Other Guy," a joint venture between ATF and the National Shooting Sports Foundation, provide essential education for FFLs. In addition, our Federal Firearms Licensing Center in Atlanta screens all FFL applicants by coordinating background checks on persons responsible for firearms operations.

ATF formulated its Explosives Threat Assessment and Prevention Strategy, or ETAPS, in the spring of 2004. This strategy gives us the opportunity to respond to changes in the explosives industry and the society in which it operates. It is a dynamic process—we gather information, evaluate it, plan programs in response to it, and evaluate the results. By combining ATF's assets involving technical explosives expertise, criminal and regulatory enforcement experience, and partnership with industry and law enforcement, we are able to continually assess risks and focus resources appropriately. It is through this dynamic process that ATF is best prepared to accomplish our vision of "Working for a Safer and More Secure America Through Innovation and Partnership."

INTELLIGENCE/TECHNOLOGY

ATF recognized the opportunity to perfect intelligence support internally and externally, and created an Office of Strategic Intelligence and Information (OSII) last year. The new directorate, headed by a new assistant director, ensures that ATF

accomplishes its missions and that our special agents and inspectors/investigators receive the necessary information to disrupt criminal organizations and individuals that threaten public safety. This arrangement aligns with the E-Government aspect of the President's Management Agenda, the DOJ's strategic goals relating to the enforcement of Federal laws and protection of America against terrorism and violent crime, and the Attorney General's priorities, including the Law Enforcement Information Sharing Program and VCIT.

OSII's mission is to provide timely, accurate, and focused intelligence through the collection and analysis of information, to enhance decision-making for all Bureau customers. The creation of OSII was a big step toward enabling ATF to put its information to the best possible use. The intelligence process is a continuous loop in which data are gathered, evaluated, and analyzed. Analytical reports are then distributed to end users, including the source of the original information. The dynamic exchange of intelligence information between Headquarters and field offices allows ATF to leverage data collection and analytical expertise to aid in providing accurate and timely intelligence support. The ultimate outcome of these efforts will be better information to investigators, which could help prevent future incidents.

ATF's laboratories are an invaluable resource in perfecting ATF cases and in serving as a resource for State and local law enforcement. ATF's laboratory system is composed of the National Laboratory Center (NLC) in Ammendale, Maryland, and the regional laboratories in Atlanta, Georgia, and San Francisco, California. The laboratories are equipped with state of the art forensic and scientific technologies. Whether performing fire debris analysis, tool mark comparisons, explosives scene evidence examinations, searching for the presence and comparing identifiable latent fingerprints, or examining trace evidence from crime scenes such as hair, paint, or fibers, the ATF's laboratory personnel provide the finest laboratory service in the Federal Government.

The NLC is also the home of the ATF National Firearms Examiners Academy. Attendees from State and local law enforcement agencies attend this rigorous 1-year program to become firearms and toolmark examiners, qualified to confirm a ballistic link between two crimes and to analyze firearms evidence. This program has become the benchmark for training in this field. The NLC also houses the Fire Research Laboratory.

ATF is a valued participant in the Terrorist Explosive Device Analytical Center, or TEDAC, operated at the FBI laboratory in Quantico, Virginia. At this center, ATF and other partners analyze explosive devices from Iraq and Afghanistan, in an effort to identify bombers and to prevent further attacks. Experts work to technically evaluate IED components to identify similarities and potential bomb makers, provide timely intelligence to military and law enforcement, and collect latent prints and DNA from terrorist IEDs to link the same person to similar devices. Four ATF employees work full-time at the center, providing their technical expertise in identifying components of IEDs. TEDAC has provided invaluable assistance to U.S. military and intelligence personnel in preventing fatal detonations of IEDs and in tracking down bombing suspects. This is a great example of how we are working within DOJ to prevent terrorism, and contributing our knowledge to a common goal.

SPECIAL PROGRAMS

Several of ATF's programs, such as the National Response Team (NRT), Special Response Team (SRT), and the canine program, strengthen our efforts in firearms, explosives and arson, and alcohol and tobacco diversion. They contribute to our missions of preventing terrorism, reducing violent crime, and protecting the public.

In the wake of a major fire or explosives incident, law enforcement investigators can rely on the expertise and advanced technology of ATF's NRT. Capable of responding within 24 hours to major explosives or fire incidents, NRT members work alongside State and local officers in reconstructing the scene, identifying the seat of the blast or origin of the fire, conducting interviews, sifting through debris to obtain evidence related to the explosion and/or fire, assisting with the ensuing investigation, and providing expert court testimony.

Deployed teams include highly trained special agent CFIs, CESs, FPEs, forensic mappers, EEOs, and chemists. Intelligence and audit support, and technical and legal advisors further complement the team. The teams use state-of-the-art tools, including specialized response vehicles, each equipped with forensic, computer, and crime scene mapping equipment.

In its 25 years, the NRT has responded to nearly 600 fires and explosive incidents, with 32 NRT callouts in fiscal year 2004 alone. The effectiveness of this response capability and the expertise of the team members were evident in the NRT's responses to incidents, such as the 1993 World Trade Center and 1995 Oklahoma

City Federal Building bombings and the 2001 attack on the Pentagon. NRTs have investigated a wide range of events, including the deadly fire at the Dupont Plaza Hotel in Puerto Rico in 1986, in which 97 people were killed in less than 12 minutes. Analysis of the quick and deadly spread of this fire gave valuable information about fire protection measures that could prevent such extensive loss of life in future buildings.

One of ATF's major assets in the fight against violent criminals is our SRTs consisting of some of the bravest, most dedicated, and most professional special agents in Federal law enforcement. The special agents on these teams conduct high-risk tactical operations such as arrest warrants, search warrants, and buy/bust operations. These are ATF's "best of the best" when it comes to tactical experts. The SRT was called out 108 times in fiscal year 2004, and its expertise is critical to our success in confronting crisis incidents.

ATF's explosives and accelerant detection canine program also plays a critical role in ensuring public safety. ATF's unique training methodology enables its 35 explosives detection canines to find explosives and gunpowder residue, IEDs, post-blast debris, firearms, ammunition, bulk explosives, and spent shell casings. The canines can detect explosives used in up to 19,000 known explosives compounds. Our 60-accelerant detection canines help to identify potential points of origin at a fire scene. In addition to supporting local authorities, the canines respond with the NRT and are used by ATF field offices on a case-by-case basis. ATF-trained canines are also deployed to other Federal, State, and local law enforcement agencies.

Although the original goal of the explosives detection canine program was to locate explosive devices, these canines have also proven themselves to be a valuable asset in firearms investigations through their ability to locate hidden firearms and ammunition. Using this existing asset in a new way has been invaluable during search warrants and following shootings when other means of locating firearms, ammunition, and spent shell casings have failed.

INTERNATIONAL

ATF's expertise and efforts benefit not only Americans, but law-abiding citizens worldwide. Through our international activities, ATF employees are working to support American interests. As discussed earlier, ATF provides post-blast and render safe training for U.S. and coalition forces in Iraq and for the Iraqi National Police. ATF also has special agents assigned to the Regime Crimes Liaison Office in Iraq to assist in the investigation and prosecution of war crimes. Law enforcement agencies worldwide use our firearms tracing capabilities to gain additional information about crime guns. In fiscal year 2004, ATF traced over 27,000 firearms for foreign law enforcement representing 50 foreign countries. Our international activities enhance public safety in many countries worldwide, and in so doing, they protect American interests.

ATF provides extensive support to America's diplomatic activities. Regional Security Officers from the Department of State's Diplomatic Security Service (DSS) participate in post-blast training led by ATF. The training focuses on explosives crime scene processing, management and preservation, and includes explosives identification and effects. Other countries have benefited from ATF's expertise in training explosives detection canines: through a partnership with the Department of State, ATF has trained approximately 450 canines for international law enforcement agencies since the program's inception in 1990. Also, our International Response Team (IRT) deploys in support of DSS investigative responsibilities and foreign government requests. The IRT has been deployed 24 times in response to fire and explosives incidents since its inception in 1991, most recently to investigate a deadly fire in Paraguay. ATF investigators quickly determined the cause and origin of this fire, which claimed 456 lives.

Attaché offices in Canada, Mexico, France, and Colombia support law enforcement within those countries and help ATF achieve our firearms and explosives missions. Our international work with IEDs provides insight into the tools used by international terrorists, and this information is critical to the protection of our homeland. With the Department's support, I am examining ATF's international presence to identify instances where a stronger international presence would help reduce violent crime and reduce our Nation's vulnerability to terrorism.

ATF works with agencies worldwide to prevent firearms from reaching the hands of organized criminal gangs, drug traffickers, terrorist organizations, and other criminals. ATF enforces provisions of the Arms Export Control Act (AECA), and has primary jurisdiction over permanent firearms and ammunition imports. The Department of State administers the temporary import and export provisions of the AECA,

and the Department of Homeland Security enforces all AECA provisions at U.S. ports and borders.

ATF personnel are also included on U.S. delegations to the United Nations, the Organization of American States, and the Group of Eight when these bodies are negotiating instruments relating to firearms, ammunition, and explosives. The Department of State values the expertise ATF personnel bring to the delegations, which is crucial in ensuring that treaties resulting from such negotiations include effective measures to combat international trafficking and terrorist access to these dangerous commodities. ATF participation is also essential to ensure that binding international agreements do not obligate the United States to implement policies that impose undue burdens on sportsmen, firearms enthusiasts, and the firearms industry.

PARTNERSHIPS

At ATF, we believe that working together is not just a good idea—it is a matter of national security. Our agency has a long history of collaborating effectively with other Federal, State, and local law enforcement agencies; in fact, other Federal, State, and local agencies consistently turn to ATF because of our expertise and our commitment to partnerships.

We are proud to be part of the Department of Justice, and to contribute our efforts toward reaching the Department's strategic goals. We are participating in Joint Terrorism Task Force (JTTF) operations, and working to improve information sharing between agencies. We share our expertise in firearms, explosives, and alcohol and tobacco diversion, as part of our robust support for joint efforts to counter the grave threat of terrorism. We make significant contributions to the law enforcement community, and our presence within the Department helps use the benefits we provide more effectively. This transition has provided both financial and operational efficiencies, which have improved effectiveness. Former Attorney General Ashcroft and Deputy Attorney General Comey have provided invaluable support to ATF, and this productive and supportive relationship is continuing with Attorney General Gonzales.

As I mentioned, ATF contributes to the Department of Justice's fight against terrorism through the JTTF program. Sixty-four ATF personnel are assigned to JTTFs across the Nation, and others support the remaining JTTFs as needed. ATF personnel assigned to JTTFs perform multiple roles: they function as in-house experts on firearms and explosives violations and on tobacco diversion; they act as liaisons between the FBI and ATF at the local level on intelligence matters; and they are a vital part of the joint investigative team that is truly the backbone of the JTTF mission.

ATF fosters innovation and cooperation in the explosives investigation community through its partnerships with other agencies, through liaison efforts with the legal explosives industry, and through research and development efforts. ATF works closely with other Federal agencies and with the academic and scientific communities, to conduct research and monitor developments in explosives research, blast mitigation, and explosives detection. Such agencies include the Department of State, the Department of Defense, the Transportation Security Administration, and others. ATF representatives also serve as co-chairs and task managers on several research efforts funded through the Technical Support Working Group (TSWG). The TSWG is administered by the Department of Defense under the auspices of the National Security Council. The principal mission of the TSWG is to conduct rapid research, development, and prototyping of multiple use technologies for law enforcement and military purposes. ATF also has collaborative research partnerships with Oak Ridge National Laboratory; Lawrence Livermore National Laboratory; University of Missouri, Rolla; and University of Massachusetts, Lowell. Also, ATF closely and regularly collaborates with representatives of foreign governments, including the United Kingdom, Israel, and Canada.

ATF employees hold key positions in many prestigious professional organizations. Since 1990, an ATF agent has chaired the Arson and Explosives Committee of the International Association of Chiefs of Police. Similarly, ATF has maintained outstanding relationships with the International Association of Bomb Technicians and Investigators, the International Association of Arson Investigators, and the National Bomb Squad Commanders. Also, as stated previously, ATF has a partnership with the National Shooting Sports Foundation in conducting the "Don't Lie for the Other Guy" program which provides essential education for FFLs.

ATF leverages its resources to better inform, advise, and educate its stakeholders and customers. In partnership with The Fertilizer Institute, ATF's voluntary "Be Aware for America" campaign raises the awareness of industry, law enforcement, and the public of the need for vigilance in connection with the sale and security of

ammonium nitrate. This chemical mixed with fuel oil was used in the Oklahoma City bombing. ATF later launched, again in partnership with The Fertilizer Institute, the voluntary "Be Secure for America" campaign, which focuses on the safe storage and transportation of ammonium nitrate.

STRATEGIC PLAN/JURISDICTIONS/VISION

ATF is striving every day to meet the strategic goals of the Attorney General and Department of Justice: preventing terrorism and promoting the Nation's security; enforcing Federal laws and representing the rights and interests of the American people; and assisting State, local, and tribal efforts to prevent or reduce crime and violence.

With the Department's goals in mind, ATF created an internal set of strategic goals consisting of the following: Preventing violent crime and terrorist related crime involving firearms; providing effective arson and explosives investigative and technical expertise to protect the public from violent crime and terrorism; and preventing illegal domestic and international trafficking of alcohol and tobacco products.

Firearms, explosives, and arson are the tools of terrorist groups and ATF's role in firearms and explosives enforcement is significant in the battle against terrorism. ATF, while working against violent firearms crime, is also helping to prevent terrorism by monitoring and investigating violations of the Federal firearms and explosives laws. ATF is preventing violent crime through its own enforcement efforts and its effective partnerships with other agencies.

ATF prides itself on its assistance to State and local law enforcement agencies, supporting the third DOJ strategic goal to "assist State, local, and tribal efforts to prevent or reduce crime and violence." As discussed earlier, ATF makes a wealth of resources available to State and local law enforcement agencies, including expert investigators, ballistic comparison technology, and explosives incident information.

ATF's jurisdictional responsibilities are directly related to efforts to combat violent crime on America's streets. ATF, as the lead Federal law enforcement agency fighting violent firearm crime, enforces the Gun Control Act of 1968 (GCA), the National Firearms Act, and other related statutes. In section 101 of the GCA, Congress declared that its primary purpose was to "provide support to Federal, State, and local law enforcement officials in their fight against crime and violence." I would note that the GCA section goes on to state that it is not intended to "place any undue or unnecessary Federal restrictions or burdens on law-abiding citizens with respect to the acquisition, possession, or use of firearms appropriate to the purpose of hunting, trapshooting, target shooting, personal protection, or any other lawful activity . . ." I want to assure the committee that ATF is mindful of this provision while maintaining a vigorous enforcement of all Federal firearms laws.

Mr. Chairman, ATF's dual role to enforce and administer Federal explosives laws is unique. While ATF agents investigate bombings, unlawful distributions of explosives, thefts of explosives, and other violations of the Federal explosives laws, ATF inspectors/investigators are carrying out the vital work of insuring the integrity of explosives as they move through commerce. While other agencies may have the resources to respond to and investigate explosives incidents, only ATF regulates the legal explosives industry, and only ATF is responsible for tracking and investigating explosives losses and thefts.

The Anti-Arson Act of 1982 gave ATF broad-based jurisdiction in arson offenses. ATF's arson enforcement efforts are directed toward preventing the crime of arson, providing effective post-incident response, and reducing the community impact of crimes involving fire. ATF enforces Federal laws related to alcohol and tobacco diversion, and is applying its past experience in governing and regulating these products of commerce to investigating the violent crimes that often accompany diversion activity.

Even as we work to solve the problems of the present, we have developed a strategic vision for the future. Pursuing this vision will help us to remain an effective and respected law enforcement organization while adapting to changing circumstances. We are working on using what we know to its maximum effectiveness—sharing intelligence information, ensuring that employees have the training and technology to accomplish their work effectively, and communicating with the public. We are focusing on working together—maintaining the partnerships that sustain us, and ensuring that administrative actions and personnel policies support ATF's fulfillment of its missions. And we are growing with purpose—seeking out opportunities to expand our contributions, focusing on prevention, and focusing our efforts internationally as well as here at home. Abiding by these principles will enable us to work most effectively and get the best results for the American people.

MANAGEMENT

Mr. Chairman, ATF is a well-managed and effective organization, and external evaluations of our abilities confirm this. In the last 2 years, the Office of Management and Budget has evaluated ATF's explosives and arson programs and our firearms programs. In each review, we received some of the highest scores achieved by Federal law enforcement programs. Also, as part of the President's Management Agenda, the Office of Personnel Management sponsored a survey of 115 Federal subcabinet agencies. On this survey of employee satisfaction, I am proud to say that ATF ranked eighth, the highest of any law enforcement agency.

With the continued support of the Department and this subcommittee, we will continue to provide innovative management and personnel projects such as the Pay Demonstration project. This program uses an alternative to the General Schedule pay scale so that pay is more directly based on performance. This program has allowed ATF to recruit and retain technically skilled employees, especially those with science-based skills and intelligence research capabilities.

We are also implementing a Bureau-wide telework program. We recognize the many benefits of telework, including improved work operations, better customer service, improved employee morale, assistance with recruitment and retention efforts, and reduced traffic on area highways. After two successful telework pilot programs in the last 2 years, we recently conducted an analysis of all positions at ATF, and concluded that 1,300 positions were suitable for telework. Employees who occupy these positions have been notified that they may apply for a telework arrangement. In the next few weeks, managers and supervisors will review employee requests to telework, and begin implementing telework agreements.

The ATF Headquarters building is being constructed here in Washington, DC, and is promising to be a model of future Government construction. The facility will combine security and advanced design technology for an environmentally friendly and cost-effective facility. ATF is scheduled to move to its new Headquarters in 2006.

FISCAL YEAR 2006 PRESIDENT'S BUDGET REQUEST FOR ATF

Congressional funding for ATF in past years is money well invested in the safety of the American people. The President's Budget for fiscal year 2006 requests $923,613,000 and 5,128 full-time equivalent (FTE) positions. I believe these additional investments will provide essential benefits to the American people.

One important new initiative will provide for the expansion of the VCIT program I mentioned earlier. Because VCIT has proven so successful, the Administration has requested $30.3 million and 150 FTEs to establish a VCIT base in 10 additional cities that have experienced an increase in armed violence in specific geographic areas or have not followed the national trend of reduced homicides and armed violence. Establishing a VCIT base in a total of 25 cities will offer more Americans the opportunity to enjoy safer neighborhoods again.

Additional funding will also enable us to increase our participation in TEDAC. Four ATF employees currently work with experts from other agencies to identify components of IEDs. The $6 million will provide two additional special agents to analyze the devices and to continue intelligence support to law enforcement and military organizations to work against the threat of terrorist IEDs.

The funds will also provide for the creation of a new database that will record, inventory, and catalog IEDs used in Iraq and Afghanistan. This database would use association software to identify similarities between explosives events and devices, and to match characteristics of bombings/bombers in real time, including latent prints, DNA reports, components of the explosives, and other forensic information. We will have the ability to extract information from the database and share it with State, local, and international law enforcement partners. The development of the database would be a partnership led by DOJ's Chief Information Officer and coordinated by ATF and the FBI.

CONCLUSION

Mr. Chairman, Ms. Mikulski, members of the subcommittee: On behalf of the men and women of ATF, I thank you for your support of our crucial work. In the last year, we have worked to stop those whose violent and criminal behavior threatens the peace of our communities. We have investigated explosives incidents and arsons. We have helped to ensure that the firearms and explosives industries operate safely and lawfully. And we have shared our knowledge with other law enforcement personnel through extensive training programs and effective partnerships. Yet I believe that our greatest achievements are still to come. We have made much progress—but we know there is much more to do. We are determined to succeed in our mis-

sions of reducing violent crime, preventing terrorism, and protecting the public. And we look forward to working with you to pursue this goal.

FEDERAL BUREAU OF INVESTIGATION

STATEMENT OF HON. ROBERT S. MUELLER, III, DIRECTOR

Senator SHELBY. Director Mueller.

Mr. MUELLER. Good morning, Mr. Chairman, Senator Mikulski and members of the subcommittee. I thank you for the opportunity to appear here today in front of you for the first time. I am sure it will not be the last.

My prepared statement sets forth the FBI's 2006 budget request and the program areas in which we seek expansion, but for purposes of my opening remarks, I would like to briefly address two of the areas that I believe are most important to the FBI's continuing success. The first is the progress we have made in establishing the Directorate of Intelligence, and the second is the improvement and expected improvement in our information technology.

DIRECTORATE OF INTELLIGENCE

Let me spend a moment on establishing the Directorate of Intelligence. In response to direction from the President and the Congress, including the findings of the Joint Intelligence Committee inquiry, the 9/11 Commission, and the Intelligence Reform and Terrorism Prevention Act of 2004, we established the Directorate of Intelligence earlier this year. This directorate has clear authority and responsibility over all of our FBI intelligence functions. This newly established directorate is comprised of a dedicated headquarters element that sets policy and direction to be carried out by all of our embedded elements, and then with embedded intelligence entities in each of our headquarters operational divisions, as well as embedded intelligence entities in every one of our FBI field offices. And these entities are called the field intelligence groups.

These field intelligence groups are central to the integration of the intelligence cycle into our field operations, and they include special agents, analysts, language specialists, surveillance specialists, as well as officers and analysts from other intelligence and law enforcement agencies. They are responsible for coordinating, managing, and executing all of the functions of the intelligence cycle and have significantly improved the FBI's intelligence capabilities and capacity.

Our efforts to date have focused on aligning our processes with partners and customers outside the FBI and increasing our intelligence production. We have had over the last year a 312 percent increase in the dissemination of intelligence assessments and over a 200 percent increase in the dissemination of intelligence information reports.

We have also made substantial progress over the last year toward expanding and strengthening our intelligence workforce. In fiscal year 2005 we initiated a plan to accelerate the interviewing and processing of applicants residing in the Washington, DC, and Baltimore region. We had a 1-week vacancy announcement advertised in 2005 for analysts and it yielded over 2,800 high-qualified applicants for the analyst position. We have filled 533 of these posi-

tions to date, and have a hiring objective of 880 analysts by the end of this year.

In order to continue to build on the progress we have made to date, we are taking measures to assure a consistent level of knowledge across our workforce, and we have instituted mandatory training for analysts. We have also taken steps to strengthen the special agent component of the workforce.

First, in this coming year we are establishing a clear path that gives all agents experience in intelligence collection, analysis, and dissemination. We also are building the capacity of agents to develop specialized skills, experience, and aptitudes in one of five areas including counterterrorism, counterintelligence, and intelligence. We are making an intelligence officer certification a prerequisite for advancement to the senior supervisory ranks. All of this is important and key to achieving full integration of the intelligence operations with our law enforcement operations.

I mention this, Mr. Chairman, because if you look at many of the requests that we have in this upcoming year, those requests are supportive of our building this Intelligence Directorate within the FBI. We continue to make progress in strengthening this capability and we absolutely believe that establishing this capability is instrumental to preventing attacks in the future.

Let me add, as I discuss the Intelligence Directorate, a note to say that we are currently reviewing the recommendations of the Weapons of Mass Destruction (WMD) Commission. As you know, the Commission recently completed its report and offered a number of recommendations for the FBI as well as for the rest of the intelligence community. The Commission's work makes a significant contribution to understanding ways we can improve our intelligence capabilities, and we are looking forward to continuing to build and reform our national security program in light of the Commission's recommendations, and I believe you will find that a number of our requests in the 2006 budget are supportive of that goal.

SENTINEL PROJECT

Let me turn for a second to the second area that I wish to discuss, and that is information technology. We absolutely recognize the importance of strong information technology as a backbone if we are to effectively collect, analyze, and share intelligence both within the FBI but also with our intelligence and law enforcement partners.

Mr. Chairman, we are committed to delivering to the desktops of the men and women of the FBI the enhanced technology capabilities they need and deserve. I believe that overall the Trilogy program was successful. I have before and continue to acknowledge that the Virtual Case File aspect of it was not successful. Yet our efforts to enhance our information technology during the past several years have provided us with a much improved understanding of program management as well as technical expertise. We are in a much better position to shape the FBI's next generation of electronic information management. This next generation, as I believe you have noted, is called SENTINEL and it remains one of my highest priorities.

This new system called SENTINEL is different from the Virtual Case File Program in a number of ways. I believe you have a chart that illustrates the additional capabilities that will be available under SENTINEL, capabilities that were not contemplated as a part of Virtual Case File when Virtual Case File was on the drawing boards in 2000 and 2001.

And while I am, as I expressed here before, disappointed at the time and effort and monies that were expended on Virtual Case File without success, I do believe we have an opportunity to provide our employees more of what they need to do their jobs.

A major difference between SENTINEL, the new system, and Virtual Case File is that SENTINEL represents our first step in deployment of a service-oriented architecture, what is known in the trade, I believe, as SOA. That means that SENTINEL will serve as a platform for the gradual deployment of capabilities and services needed by all FBI divisions. At the same time, we will gradually roll out key technical services through the SENTINEL program, such as automated work flow, search capabilities, records and case management and reporting protocols, rather than doing it through one massive flash cut-over as was contemplated by Virtual Case File.

The service-oriented architecture will raise our business practices to the next level by providing enhanced capabilities, new services, and better efficiency, while also ensuring a smooth transition from our legacy applications to a more state-of-the-art technical platform. This special oriented architecture will further support the FBI's mission by helping manage our investigative, administrative and intelligence needs while also improving ways to encourage information sharing among our counterparts.

SENTINEL is a four-phase project, each phase developing a stand-alone capability to our users. The phased rollout will facilitate ease of user transition, training, deployment, and support. Phase I will be ready for deployment approximately 12 months after the contract award date, which we expect to be toward the end of this year. We have taken the first step in the deployment strategies—I believe your staff has been briefed—by selecting our contracting vehicle. Our next step of the procurement process is to consider the proposals from interested and qualified vendors.

I know a question that all would ask is what is the cost? And let me try to give an answer that may at this point not be altogether satisfactory in open session, but we have a cost estimate. However, because of the procurement process and the sensitivity of the procurement process, our preference would be to discuss those with you off the record.

Let me just say, as we complete the remarks on the technology, that I fully understand the scrutiny that is necessary and appropriate to ensure that the SENTINEL Project is successful from beginning to end, and we have implemented a number of undertakings to ensure that that will be the case.

In conclusion, Mr. Chairman, thank you again for the opportunity to testify before you today and to highlight the importance of both the Directorate of Intelligence as well as our plans for SENTINEL.

PREPARED STATEMENT

In closing, I will also refer to the comment that I believe you may have made, that is, we are looking forward to working with the new Director of National Intelligence, Ambassador Negroponte. We expect to support him and his efforts in any way we can. The expansion of our intelligence capabilities I believe fits directly into what he anticipates he needs in assuring that he is able to bring together domestic intelligence with intelligence that is derived from overseas.

I also would be happy to answer any questions you have, Mr. Chairman.

Senator SHELBY. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ROBERT S. MUELLER, III

Good morning, Mr. Chairman, Senator Mikulski, and Members of the Subcommittee. I am pleased to appear before you today with Attorney General Gonzales and I appreciate the opportunity to discuss the President's fiscal year 2006 budget for the Federal Bureau of Investigation (FBI). I would first like to express my gratitude for the continued support and guidance you have provided the FBI as we continue our efforts to ensure that we are able to address current threats and keep America safe from those who would do us harm. Specifically, I would like to thank you for recently passing the fiscal year 2005 Supplemental, which included $74 million for the FBI. In addition to including critical funding for the FBI's operations in Iraq, the Supplemental will allow the FBI to improve its efforts at home in the war on terrorism.

2006 BUDGET REQUEST

The FBI's fiscal year 2006 budget request totals 31,475 positions, including 12,140 agents and 2,745 Intelligence Analysts, and $5.7 billion. This includes 2,086 new positions—615 agents, 508 Intelligence Analysts, and 963 support positions—and $496 million in new investments to continue strengthening our Intelligence Program and support our Counterterrorism and Counterintelligence activities. In addition, the fiscal year 2006 budget request includes resources to address the FBI's information technology and infrastructure requirements. These resources are critical to the Intelligence, Counterterrorism, and Counterintelligence Programs, as well as to our traditional criminal investigative efforts, and maintain the support we provide to our state, local, and tribal partners. The following highlights critical areas of operations and support functions.

TECHNOLOGY

Since I last appeared before the Subcommittee in February of this year, the FBI has taken significant steps in planning for our future case management system. I want to take an opportunity to provide you with an update on our plans, and proposed time-line.

The FBI's commitment to delivering enhanced technology capabilities remains resolute. Our efforts with regard to the Trilogy Project resulted in a better understanding of program management and technical expertise. The lessons learned have resulted in changes that have already facilitated successful programs, including the pilot testing of VCF Initial Operating Capability (IOC), which concluded at the end of March 2005. As a result of VCF IOC, we were able to gain user input that will better direct the development and roll-out of future capabilities. Additionally, lessons learned have better positioned us to shape the FBI's next generation electronic information management system, SENTINEL. Successful deployment of SENTINEL remains one of my top priorities.

SENTINEL is different from the VCF program because it will serve as a vehicle in which capabilities can be gradually deployed. We will roll-out key technical services in phases, such as records and case management capabilities, to smoothly transition into the new system while retiring legacy applications. SENTINEL will raise our business practices to a higher level of performance by providing enhanced capabilities, new services and better efficiency. SENTINEL will further encourage information sharing within the FBI and among our counterparts.

The current planning has SENTINEL functions divided into four phases, which will be incrementally developed and deployed. Each phase will deliver stand-alone capabilities. The phases take into consideration migration of legacy data and retirement of legacy systems. An initial estimate for full development and implementation of SENTINEL is 39 to 48 months. The first phase of the development is estimated to begin late this calendar year. As I mentioned, SENTINEL will replace a number of legacy applications, the most important of which is the Automated Case Management System; other applications to be replaced include: ASSET; Criminal Informant Management System; Bank Robbery Statistical Application; Financial Institution Fraud and Integrated Statistical Reporting Analysis Application. Additionally, SENTINEL incorporates support for XML standards to facilitate internal and external information sharing.

The total estimated cost of SENTINEL has not yet been finalized, but would be distributed over two to four fiscal years. However, development costs for each phase will be fully funded in the year in which work begins on that phase.

DIRECTORATE OF INTELLIGENCE

At the direction of the Congress and President, the FBI has established the Directorate of Intelligence. As required in the FBI's fiscal year 2005 Appropriation legislation, the Directorate will lead the FBI's integrated, dedicated national intelligence workforce—"A Service within a Service." The guiding principle for FBI intelligence is the integration of law enforcement and intelligence operations. To achieve this integration, we use a management principle of centralized management and distributed execution. The Directorate establishes priorities, processes and policies for intelligence operations that are executed by fully integrated intelligence elements in other Headquarters offices and the Field. The priorities, processes, and policies are fully aligned with those of the Attorney General, and the Director of National Intelligence (DNI):

—This integrated intelligence service leverages our traditional law enforcement culture—with particular attention to the pedigree of sources and fact-based analysis—while ensuring no walls exist between collectors, analysts, and those who must act upon intelligence information.

—The term "Directorate" signifies that intelligence is not the responsibility of one office or one division, but crosses program lines and permeates all we are charged with doing.

—FBI intelligence professionals will integrate all partners—particularly state, local and tribal law enforcement—into our intelligence structures. Through joint operations in a shared information space, we create a common view of the threat and a clear understanding of our respective roles in countering the threat.

The FBI's fiscal year 2006 budget request includes an enhancement of $26 million for the Directorate of Intelligence. The resources would strengthen three critical areas: program development; training; and recruitment and retention. These areas have been identified as critical to the success of our Intelligence Program.

We are requesting resources to continue restructuring and integrating the enterprise-wide Intelligence Program, which would enable us to centrally manage our core intelligence functions and implement programs, standards, policies, and training for analysts consistent with standards to be determined by the Director of National Intelligence (DNI). This would also allow us to manage intelligence requirements and intelligence collection activities in accordance with national intelligence priorities, and to ensure that all intelligence gathered and analyzed is disseminated to those who need it, both inside and outside the FBI. Our efforts to date have focused on aligning our processes with partners and customers outside the FBI, and increasing our intelligence production. The FBI had a 312 percent increase in the dissemination of intelligence assessments from calendar year 2003 to 2004, and a 222 percent increase in the dissemination of Intelligence Information Reports during that same period.

—In order to ensure a consistent level of knowledge across the workforce, we have instituted specialized training, which is now mandatory for all FBI Intelligence Analysts. This year, more than 150 analysts have received intelligence training and our goal is to train at least 1,000 analysts by December 2005. In addition, intelligence training has been incorporated into new agent training. As directed in the FBI's fiscal year 2005 Appropriation, we are making additional improvements to expand and enhance our training program, to include joint training sessions with other members of the Intelligence Community, creation of a fellows program to exchange staff with other federal agencies and the private sector, and opportunities for academic sabbaticals to pursue advanced degrees. Our

fiscal year 2006 request would enhance the basic intelligence analyst course, and provide support for advanced Intelligence Analyst training.

—We have made substantial progress towards expanding and strengthening our intelligence workforce. As a result of our hiring efforts, we have received overwhelming interest in the Intelligence Analyst position. A one-week vacancy announcement advertised in February 2005 yielded over 2,218 applicants. We have hired 476 Intelligence Analysts through February and have a hiring objective of 880 by the end of the year. The fiscal year 2006 budget request includes resources to continue recruitment and retention initiatives.

Finally, the FBI has integrated management of the Foreign Language program within the Directorate of Intelligence. This integration aligns foreign language and intelligence management activities and provides for delivery of service across all program areas. At the end of February 2005, there were 406 language specialists on-board. In addition, we use the services of over 900 contract linguists. This represents a 67 percent increase in the number of total linguists since 9/11. During calendar year 2004, our Language Services program reviewed over 532,000 hours of audio and over 1.9 million pages of text in support of the counterterrorism and counterintelligence missions. We are requesting an enhancement of 274 positions and $26 million in fiscal year 2006 to enhance the program's capacity in counterterrorism and counterintelligence-related languages, and to integrate a permanent staff of linguists within the National Virtual Translation Center.

COUNTERTERRORISM

The FBI is committed to defeating terrorists and preventing terrorist attacks. We endeavor to deny terrorists and their supporters the capacity to plan, organize, and carry out logistical, operational, and support activities. In order to be successful, we must be able to develop intelligence about their plans and disrupt their efforts. In conjunction with our partners, we will pursue appropriate sanctions against terrorists and their supporters. Success is dependent on networked information technology systems and the capacity to manage and share information effectively. Resources are also critical to the mission. In fiscal year 2006, we are requesting an enhancement of 791 positions, including 468 agents, and $122 million for national security field investigations.

A critical mission within the Counterterrorism Division is the Foreign Terrorist Tracking Task Force (FTTTF). FTTTF was created in response to Homeland Security Presidential Directive-2 (HSPD–2). The mission of the FTTTF is to provide information that helps keep foreign terrorists and their supporters out of the country or leads to their exclusion, removal, surveillance, or prosecution. The FTTTF specializes in combining public, proprietary and government data sources to support the FBI's counterterrorism mission, including support to other U.S. and international operations.

Current collaborative partners and key players include: FBI's Counterterrorism Division—National Joint Terrorism Task Force; Central Intelligence Agency; Department of Defense; DOD Counterintelligence Field Activity; Department of State; and Department of Homeland Security.

In February 2005, the FBI and DHS executed an agreement to provide for the sharing of information from the US-VISIT and Student and Exchange Visitor Information Systems (SEVIS) programs. As a result of the agreement, the FBI will be able to retrieve and analyze all of the biographic and biometric data on foreign travelers and students collected in US-VISIT and SEVIS. FBI personnel will be able to access this information through the Investigative Data Warehouse and FTTTF databases, as well as through established user accounts at FBIHQ and field office.

The agreement requires the FBI to verify information and coordinate with DHS before taking action on leads or disseminating intelligence products developed as a result of information under this shared agreement. It also broadly provides the FBI authority to share US-VISIT and SEVIS information as necessary with other federal, state and local personnel.

TERRORIST SCREENING CENTER

The Terrorist Screening Center (TSC) is a multi-agency effort designed to consolidate the screening process for known and suspected terrorists, and to provide for the appropriate and lawful use of terrorist information. The TSC operates 24/7 to provide a unified approach to terrorist screening. Through February 2005, TSC received 21,650 calls (over 3,500 from state and local law enforcement), made over 11,300 positive identifications, and assisted in over 340 arrests—including six with a terrorism nexus. For fiscal year 2006, we are requesting an increase of 61 positions, to include six Intelligence Analysts and eight agents, and $75 million. These

resources would provide the TSC with the ability to not only continue fulfilling the TSC's mission as mandated by Homeland Security Presidential Directive 6, but also begin to address the requirements generated by several other initiatives—more stringent screening at United States borders, new requirements for the government to screen passengers on domestic and international flights without unduly delaying commerce or travel, and ensuring organizations receiving public funds do not have terrorist links. TSC projects that its workload will increase by up to 3 million queries per day by fiscal year 2006.

COUNTERINTELLIGENCE

As the lead counterintelligence agency in the United States, the FBI is responsible for identifying and neutralizing ongoing national security threats. In counterintelligence, we are alert to the potential of a foreign power to penetrate the United States Intelligence Community and to compromise Critical National Assets. We are also deeply concerned about an agent of a hostile group or nation producing or using weapons of mass destruction. Furthermore, the players in the espionage game have diversified. We are no longer dealing exclusively with intelligence agents. Today the threat can just as easily come from students, business executives, or hackers.

OFFICE OF CHIEF INFORMATION OFFICER

In fiscal year 2006, we are also requesting an enhancement of $7 million to provide contract support for the Office of the Chief Information Officer. With these resources, we will be able to better ensure that disciplined processes are applied to our project management activities and that our projects accurately reflect operational requirements and our architecture standards while supporting our information technology systems development and engineering.

INTEGRATED AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM (IAFIS)

We appreciate the support you provided us for the Integrated Automated Fingerprint Identification System (IAFIS) program in the fiscal year 2005 Appropriation language. It allows us to move forward with our plans to modernize our hardware and software to ensure interoperability and increased information sharing with other agencies through use of emerging technologies. In fiscal year 2006, we are requesting an increase of $16.8 million for Next Generation IAFIS to improve its speed and accuracy, allow for flat print capture, and enhance the Criminal History Record Information Database. These initiatives will support both our state and local partners and the security of our nation's borders.

LAW ENFORCEMENT ONLINE (LEO)

We are also focused on developing technology to promote information sharing with our state and local law enforcement partners. The FBI is requesting an increase of $8 million to upgrade the Law Enforcement Online (LEO) network with cost effective solutions to accommodate law enforcement user and content growth, and to conduct annual security audits, reviews, and technology assessments to ensure LEO remains compatible with emerging technologies and customer needs. As of March 1, 2005, LEO supported over 41,000 users. In addition to the current LEO user base, there are approximately 17,000 Regional Information Sharing System users who have the ability to access LEO. During fiscal year 2004, the FBI added more than 4,000 National Alert System, or NAS, users. NAS provides immediate notification regarding crisis events.

OVERSEAS COOPERATION

International cooperation has been, and will continue to be, crucial to effectively prevent and disrupt terrorist networks. We are continuing to develop foreign partnerships through expansion of our Legal Attaché program. Currently, we have 51 Legal Attaché offices open, covering over 200 countries around the world, supporting our efforts to neutralize transnational threats. We anticipate opening three additional Legal Attaché offices by the end of this year: Kabul, Afghanistan; Sofia, Bulgaria; and Sarajevo, Bosnia. In fiscal year 2006, we are requesting an enhancement of 60 positions and $11 million for the Legal Attaché program and related information technology infrastructure requirements. We propose to open one new office and to enhance our presence in several existing critical locations. Augmenting the Legal Attaché presence overseas will provide an operational benefit by reducing the span of control of affected offices, resulting in more manageable workloads to address terrorist and criminal investigations. Foreign law enforcement cooperation is a central

ingredient in fighting the international war on terrorism, and an effective Legal Attaché program is essential to maintaining our success in this area.

INFRASTRUCTURE IMPROVEMENTS

The last few years have seen rapid reorganization and expansion of our organization. We have undergone much change and hired many new personnel. One of our highest priorities has been maintaining the strength of our workforce. We conducted a study in 2004 to improve the hiring process of support personnel. The study's recommendations included streamlining several business practices and realigning resources to more effectively execute our hiring efforts. The majority of these recommendations are in the process of being implemented. For fiscal year 2005, we have initiated a plan to accelerate the interviewing and processing of applicants residing in the Washington, DC and Baltimore region for the FBI's top priority programs, including the Directorate of Intelligence, in an effort to achieve this year's hiring goals.

As we expand our hiring, our training capacity must improve as well. In fiscal year 2006, we are requesting $15 million to continue addressing the more pronounced deficiencies at the FBI Academy. We need to ensure that our facilities at the FBI Academy are suitable for training agents and Intelligence Analysts, as well as maintaining our support of the National Academy. Quantico provides training to an average of 1,500 intelligence and law enforcement personnel each day. We are renovating and modernizing our facilities in order to meet the demands of our new intelligence-driven training initiatives.

As part of our initiative to improve physical infrastructure and support the counterterrorism mission, we are requesting $10 million in construction funding to conduct architectural and engineering studies for a new Critical Incident Response Group (CIRG) facility. The funding would also be available for the purchase of land once a suitable location is found. A new complex would provide for adequate training space, and would allow CIRG's executive management, command and control, and crisis response elements to be centralized in one location.

CRIMINAL INVESTIGATIVE DIVISION

We are also continuing to enhance our Criminal Program. In 2004, we realigned our program structure. The realignment maximizes the effectiveness of resources, mirrors actual work processes, focuses on threats from criminal enterprises, and promotes the collection, exchange and dissemination of intelligence throughout the FBI and other authorized agencies. In fiscal year 2004, we reported more than 21,000 arrests, 15,000 indictments, and 16,000 convictions. The focus of the Criminal Investigative Program is in areas where we provide a unique skill and provide a critical contribution to law enforcement.

We have placed additional emphasis on targeting violent gangs. Gangs and other criminal enterprises operating in the United States and throughout the world pose increasing concerns for the international law enforcement and intelligence communities. Today, gangs are more violent, more organized and more widespread than ever before. They pose one of the greatest threats to the safety and security of all Americans. The Department of Justice estimates there are approximately 30,000 gangs with 800,000 members, impacting 2,500 communities across the United States. The innocent people in these communities face daily exposure to violence from criminal gangs trafficking in drugs and weapons, gangs fighting amongst themselves to control or extend their turf and their various criminal enterprises, which pose a significant threat.

In response to the threat, we have developed the National Gang Strategy. Priority is given to efforts to disrupt and dismantle gangs that are national in scope. One of the first to be targeted is MS–13, a violent gang that originated in Los Angeles and has spread across the country. We have created a National Gang Task Force specifically to address MS–13. We are establishing a new National Gang Intelligence Center (NGIC) at FBI headquarters, which has been made possible through resources the Congress provided this year. The NGIC will collect intelligence on gangs from across the United States, analyze this intelligence, and disseminate it to help law enforcement authorities throughout the country plan and execute strategies to prevent further gang activity and violence.

The FBI views identity theft as a significant and growing crime problem, especially as it relates to the theft of consumer information from large wholesale data companies. Identify theft has emerged as one of the dominant white-collar crime problems of the 21st century. The FBI opened 889 investigations related to identity theft in fiscal year 2004. That number is expected to increase as identity thieves become more sophisticated and as the crime is further embraced by large criminal

organizations, placing more identity theft crime within FBI investigative priorities. Identify theft crosses all program lines and is usually perpetrated to facilitate other crimes such as credit card fraud, check fraud, mortgage fraud, and health care fraud. At present, the FBI has over 1,600 active investigations involving some aspect of identity theft.

The National Sex Offender Registry (NSOR) is under the control of the Criminal Division's Crime Against Children Section and the Criminal Justice Information System (CJIS). As directed by Congress, the FBI maintains a national database to track the whereabouts and movements of sex offenders. The foremost goal of the Registry is to prevent sexual offenders from committing further sex crimes and protecting the public, and the NSOR is a critical tool that is educating and protecting the public and children from harm. The system uses an FBI number to connect information in the National Crime Information Center (NCIC) to existing criminal history information in the Integrated Automated Fingerprint Identification System (IAFIS). In order for this to occur, the convicted offender must have a preestablished FBI criminal history record, which can be based on any prior arrest. Recent murders of innocent children have highlighted the need to make the public even more aware of the NSOR, which is available as a link from the FBI's website, fbi.gov, and state and local government agencies.

CONCLUSION

Mr. Chairman, Senator Mikulski, and Members of the Subcommittee, the FBI's overriding priority has been protecting America by preventing further terrorist attacks. The FBI has made many significant changes, and will continue to adapt to protect our country. We have reorganized from an agency whose primary focus was law enforcement into an integral member of the Intelligence Community. The men and women of the FBI are its greatest asset. Working together, Special Agents, analysts, scientists, managers, and support employees attack threats as a team, with a unified determination to protect our country and our civil liberties.

Once again, I thank you for your strong support of the FBI. It will be my pleasure to answer any questions you may have.

IDENTITY THEFT

Senator SHELBY. Attorney General Gonzales, I understand that some of the Department of Justice's travel card accounts may have been compromised recently. Can you describe your efforts as they relate to stealing and compromise of account and other personal information? In other words, what are you doing at the Justice Department in helping to stop identity theft?

Attorney General GONZALES. Mr. Chairman, identity theft is regrettably one of the fastest growing crimes in our country. One of the consequences, regrettably, of our growing technology and the use of the Internet is making it easier for those with bad intentions to engage in identity theft.

The Department's approach is basically three-prong. The first is enforcement. In connection with that, of course, there was legislation recently passed, the Identity Theft Penalty Enhancement Act, which imposes additional penalties above and beyond penalties related to the underlying criminal conduct, such as credit card fraud. The past few years we have engaged in some major sweeps around the country, but clearly, more needs to be done.

Second, in relation to that, we are engaged in a very strong educational program providing training to State and local officials, and providing education to the public, to tell them what is possible, what can possibly be done by these criminals, and what good God-fearing citizens can do to protect their assets.

The final component, of course, is to continue to look to see whether or not additional legislation is necessary or appropriate to deal with this threat. We obviously are very concerned about it. I am committed to working with the Department of Homeland Secu-

rity (DHS). I know for Mike Chertoff this is a security issue, the fact you have people that are able to take the identity of someone else. It does create a security issue for this country, and we are committed to working with DHS to try to address this problem.

Senator SHELBY. It is involving billions of dollars, is it not?

Attorney General GONZALES. It is a massive problem, yes, Mr. Chairman.

NATIONAL REGISTRY WEBSITE FOR SEX OFFENDERS

Senator SHELBY. Shift to another area. According to the National Center for Missing and Exploited Children, there are 549,000 registered sex offenders in the United States. These are people who have been convicted of preying on our families and especially our children. They are largely unknown. They have a high rate of recidivism. It is estimated that nearly 100,000 sex offenders do not register, fail to update the information, or have just disappeared.

Last Friday the Department of Justice, under your leadership, announced the creation of a national registry website for sex offenders. Could you discuss that just a little bit, and how is this website different from sites currently operated by the Bureau, FBI, and the Bureau of Immigration and Customs Enforcement, and will people be able to enter a name and the site will search all of the sites it is linked to? How will it work, in other words, Mr. Attorney General?

Attorney General GONZALES. Thank you, Mr. Chairman. The Department saw a need to try to provide additional information to the public about sex offenders who may possibly be within their neighborhoods, and there were too many families crying out for information in order to protect their kids. We took existing technology with existing information on the websites of States and territories who require registration of sex offenders, and provided a vehicle free of charge for any American who has access to the Internet to simply type in a name, a precinct, a county, a ZIP code, a State, and able to pull up the names of all registered sex offenders within that scope.

It relies upon State databases, and for that reason, obviously, we are dependent upon the information——

Senator SHELBY. Are they interoperable?

Attorney General GONZALES. Pardon me?

Senator SHELBY. Will the databases be interoperable?

Attorney General GONZALES. Absolutely. We rely upon the States' information, and, therefore, we are dependent upon the accuracy of the information within the State. The beauty from my perspective is that it does rely upon existing technology. The cost is minimal. We have existing funds from 2005 and 2006 to operate this facility, and obviously we will look for ways to find additional funding for future years. But in my judgment, it is a good start in providing additional information to families.

EXPLOSIVES FEE

Senator SHELBY. Mr. Attorney General, the budget request proposes a $120 million fee increase that I mentioned earlier on the explosives industry. What is your schedule for getting this authorization through Congress? Has the authorizing language for the fee

been transmitted by the administration? And if not, when will it be transmitted?

Attorney General GONZALES. Mr. Chairman, I don't know what the schedule is, but I will find out and get that information to you. Let me just say that with respect to the administration of fees, it has been longstanding administration policy that in appropriate circumstances there should be fees charged in connection with the administration of certain laws, and this would be one such example. But I will get that information to you as quickly as I can.

STATE AND LOCAL LAW ENFORCEMENT FUNDING

Senator SHELBY. I think I mentioned it and Senator Mikulski did, too. The funding for State and local law enforcement, the proposed cuts here, a lot of us believe they are critical partners in homeland security, the war on terrorism, law enforcement and so forth. How do you justify the funding cut there, Mr. Attorney General? I know it is a tough budget deal.

Attorney General GONZALES. Mr. Chairman, the budget does reflect some very tough decisions. There are priorities within this administration, one priority being, of course, the protection of this country. And then we have other priorities, and regrettably, there may be some good programs that we just do not have enough money to fund. And so the budget reflects some tough decisions.

With respect to State and local law enforcement, let me first begin by emphasizing that we understand and appreciate the importance of cooperation and coordination with State and local officials. We cannot be successful unless we have the help of State and local officials in addressing not just terrorism, but other crimes in this country.

There are various reasons why certain programs may be cut, irrespective of whether or not they are actually good programs. For example, we may discontinue funding because the objective of the initial funding may have been met, such as the COPS program, where initially that was a program created to put 100,000 cops on the street. We met that objective.

Second, some programs reflect a one-time grant and, therefore, they are not funded again.

Third, a program, quite frankly, may not score well with respect to the OMB standards about whether or not a particular program can justify continued funding.

And, finally, there is a longstanding administration policy to sort of discourage funding of programs that are not competitively bid, that are sort of earmarked. And so there are a variety of reasons why certain programs may receive discontinued funding.

Now, with respect to cuts to State and local law enforcement, let me just emphasize there is a tremendous increase in the budget within the Department of Homeland Security (DHS) to provide monies to first responders. Some might argue, well, those are monies that will not find their way to the cops on the streets. But, in truth, many of the monies will be spent on resources and technology, computers that can be shared by first responders, and by the beat cop. And so I think it is not a fair assertion to look at the monies cut out of these programs and say that the administration is somehow not providing resources to State and local officials.

We are finding other ways to do it, and obviously we are working as hard as we can to be more efficient in the monies that we continue to provide to State and locals, which is a significant amount. But the bottom line is this budget does reflect some very tough decisions.

PRISON CONSTRUCTION RESCISSIONS

Senator SHELBY. Mr. Attorney General, how do you justify ignoring this subcommittee's direction regarding prison funding by rescinding funding for two prison construction projects? And in your view, does the budget request support the real needs of the Federal prison system? It continues to grow. It is overcrowded.

Attorney General GONZALES. It does continue to grow, and it is a serious problem. It does require us to become more efficient. We are looking at finding ways to be more efficient by consolidating facilities, by looking to create prisons that are not stand-alone facilities but are located in proximity to other Federal facilities so that we can share resources.

The prisons that we are contemplating to retire are very old facilities. They are minimum-bed facilities. We had the bed space available with respect to minimum security beds in other prisons. We are committed, if these prisons are retired, to ensure—we will do our best to make sure that the people that are working there have the opportunity to find a job in other facilities.

If you look at the age of the facilities and what it would cost to renovate these facilities and provide additional needed infrastructure, we believe it simply makes more sense to retire these facilities as opposed to continue to try to fund to keep these facilities open.

Senator SHELBY. Senator Mikulski.

NATIONAL REGISTER FOR SEXUAL PREDATORS

Senator MIKULSKI. Thank you, Mr. Chairman. I want my first round of questions to be directed at Mr. Gonzales, unless it is appropriate for Mr. Mueller to come in, and then in my second round to talk about the FBI.

Mr. Gonzales, I am so pleased in your national budget you are talking about how to protect children, and women and children. I want to pick up on one question with the National Register for Sexual Predators.

I am so pleased that you have established this registry. This is an enormous threat to our own community. In Maryland, we have had children die because of sexual predators. Also, most recently we have had them lurking around schools and playgrounds again, and parents need tools that they can use, as well as local crime watch.

Could I just understand, if I type in a zip code or a parent types in a zip code, would then the registry show the name of the predator, the convicted predator, and the address of the predator?

Attorney General GONZALES. That is my understanding, Senator. You would get that information. Again, the way this has been structured, we can do it fairly quickly because we are relying upon information that currently already exists in databases of States

and territories. We are dependent upon the information that is within the State databases. But you would get that information.

Senator MIKULSKI. It will come back to the State databases because the Federal funds go to State and local law enforcement, which I know many of my other colleagues will focus on. In the interest of time, I am going to stick with the children's issue.

This is a really big issue, and we thank you for your leadership. We were so dismayed to hear our colleague, Senator Schumer, bring to our attention that Medicaid is now paying for Viagra for these predators. What a despicable thing. What a ripoff of the taxpayer. And we hope that the Department of Health and Human Services is going to take action on this, and we look forward to your working together on this.

I would like to compliment your office as well as the FBI on the leadership it has taken to protect children not only in their community but virtually in what we would call the virtual playground. And we are so pleased that it was the FBI through its project called Innocent Images, started in Maryland because of the death of a child in Maryland, that has really been standing sentry on the sexual predators on the Internet, a despicable situation. And as we fight our global war against terrorism, there are many predators that pose threats in our communities, so we want to encourage the ongoing efforts to have these efforts to protect our children in our neighborhood as well as on Innocent Images. And when you come back, Mr. Director, we would like to know that is not being shortchanged.

VICTIMS OF CRIME

Then let me go to the victims of crime. While we see how we are trying to protect, we are concerned very much about the cuts in the victims of crime assistance. Could you share with us what this one—because we see what is happening. Most recently, the little girl that was found buried alive, an 8 year old, after she had been raped and buried alive, thanks again, local law enforcement found her. The murder of the girl that was trying to get out of a gang life who was stabbed 16 times. We have these terrible victims of crime, and yet there is a rescission here in the victims of crime program.

Could you tell us—the Crime Victims' Fund, as I understand it, is paid for fees collected from convicted criminals. I believe the money should be made available to victims. Number one, will that money be made available? And, number two, with the rescission of $1.3 billion from the Victims of Crime Fund, what services will be either eliminated or diluted?

Attorney General GONZALES. Senator, let me——

Senator MIKULSKI. Because we have got to really think about these victims.

Attorney General GONZALES. Senator, I do think about the victims. Attending several victims ceremonies recently in connection with Victims' Rights Week, I heard their stories and I really understand that we have an obligation. The Department, I believe, has a very strong obligation to look out for the rights and the interests and the concerns of victims. I care about them very, very deeply.

I would remind you, of course, that the President feels the same way, and he advocated a constitutional amendment with respect to victims' rights.

Our budget request does lift the cap on spending out of the Crime Victims Fund from $620 million to $650 million. So we view it as an increase in terms of spending for victims' rights.

Now, we have requested a rescission of prior year unspent balances. As you know, because of the way our budget process works, that amount gets rolled over from year to year. We just felt it was a more straightforward way of dealing with this budget issue, but it does not, in my judgment, reflect lessening of a commitment to victims' rights. In looking at the receipts, it appears that the receipts will be sufficient to maintain the level of funding that we have come to expect with respect to this fund. Again, this just reflects a budgetary decision.

Senator MIKULSKI. Mr. Gonzales, I don't question your commitment, but I am here as an advocate, not an accountant. And my question is: If you rescind close to $1 billion, what does that mean? That you had a pile-up of money from collecting funds from these convicted criminals, that you did not spend it? And shouldn't this be rolled over then and more direct assistance to the victims as well as other kinds of programs?

Attorney General GONZALES. You are correct, it was a pile of money that was collected, fees, that could not be spent because there were caps placed upon it. Therefore, it could not be spent, and it kept rolling over from year to year.

Senator MIKULSKI. Why couldn't it have been spent? There was not enough "demand" by the victims?

Attorney General GONZALES. I don't know if it is a question of demand, Senator. It is a question of this was a cap imposed by the Congress and agreed to by the administration, and there was—I think it was to provide some level of certainty because the fact that the level of fees collected year to year varied, and there was a decision to provide some level of certainty as to how much money would be spent every year, and so the decision was made as to what the cap should be. And as I have indicated, we propose raising the cap from $620 million, which it had been, to $650 million.

Senator MIKULSKI. Well, I think what I am trying to understand, then, is why did the money pile up. Number two, what is a better use of the money?

I know my time has expired, and perhaps we could have that in more detail from your Department so that, number one, we really are on the side of the victims. And we will come back to some other issues on that.

Attorney General GONZALES. We would be happy to try to get your more information about that, Senator. Thank you.

[The information follows:]

CRIME VICTIMS FUND—WHY DID THE MONEY PILE UP AND WHAT IS A BETTER USE FOR THE MONEY?

The Fund is set up as a separate account in the United States Treasury with deposits coming predominantly from criminal fines; the proceeds of forfeited appearance bonds, bail bonds, and collateral, special forfeitures of the collateral profits of crime proceeds retained in an escrow account for more than 5 years, and penalty assessments for federal misdemeanor and felony convictions. Money is collected and

deposited in the Fund account in one year and made available for obligation the succeeding fiscal year. Hence, money deposited into the Fund in fiscal year 2005 will serve as the source of funding for programs in fiscal year 2006. The collection and deposit period runs from October 1 through September 30 of a given fiscal year.

For the last several years, both Congress and the Administration have proposed to control the level of expenditures made from the Crime Victims Fund (CVF) by imposing an obligation limitation. The fiscal year 2006 President's Budget continues to propose a cap on the CVF, as it is necessary to ensure a more continuous level of service provided by the partners in the field. Any collections in excess of the cap for a given year are carried forward into the following year, which is how collections have accumulated in the Fund. The fiscal year 2006 budget proposes to rescind these accumulated balances. The accumulated balances are due to exceptionally large collections that have occurred in recent years. As to a better use of the money, collections should be used for the purposes for which they are authorized, to provide assistance and compensation to victims of crime. The Administration's proposal simply seeks to end the current practice in which unspent balances are carried forward into the next fiscal year, creating a discretionary budget "offset" that permits spending for other, unrelated activities.

Senator SHELBY. Senator Leahy, Senator Stevens is going to yield to you right now.

Senator LEAHY. I appreciate that. I appreciate my friend from Alaska. I have to be on the floor.

Attorney General, I am troubled by your answer to Senator Mikulski. Are you concerned about the victims of crime? I am sure you are. You and I have discussed this before. I have no doubt of your sincerity. But we can talk about, well, we are going to raise the limits, we are going put more money, we are going to do this, that, and the other thing for the victims of crime. But this money is from criminal fines, forfeitures, assessments. It does not come from the American taxpayers. And you are zeroing out the fund. At the end of fiscal year 2007 there will be no money left. The administration's fiscal year 2006 budget proposal would siphon off all the funds. You know and should know full well that as we put together—and these have all been bipartisan efforts to put together these victims' funds—and suddenly the money is zeroed out, it has this chilling effect all the way down the line. The victims' programs are not going to be funded. People are going to say there is no money there. Sure, the money is rolled over. Sure, the money is rolled over each year. That is what the Congress wanted the money to do, to roll over each year, because new programs are coming online, whether it is in your State of Texas, my State of Vermont, Director Mueller's State of California, or anywhere else. They are coming online. Our country is growing all the time. Unfortunately, there are more victims of crime all the time.

I would hope that you and the administration would go and review this again because it creates in my mind a somewhat chilling effect. We can talk about how we all want to raise the caps on these, but if the money is gone, it does not make any difference.

COST OF SENTINEL

Director Mueller, I am concerned about your testimony on the cost of SENTINEL, the Virtual Case File replacement. We have been unable—our staff, including staff cleared for security matters, has been unable to get an estimate of what this is going to cost. You suggest we might do this in a closed-door hearing. Frankly, I get kind of worried because for years we were unable to get estimates on a virtual case file, even in testimony here. A few days

later we find out how much was wasted, how badly it went down the drain. I think you are going to find that many of us want to get those briefings, and I would suggest that stonewalling staff up here is not the way to do it.

FBI SEARCH OF TERRY NICHOLS' HOUSE

But my question to you in the time I have is: On March 31—and I happened to notice this date because it was my birthday—FBI agents acting on a tip searched the house where Terry Nichols lived just before the bombing of the Alfred P. Murrah Federal Building in April 1995, 10 years ago, one of the worst acts of domestic terrorism on our soil.

So 10 years later, 10 years after the fact, 10 years after the time Terry Nichols was in jail, the FBI searched his house and they found blasting caps and other explosive materials apparently related to the bombing. Ten years?

Mr. MUELLER. I would be happy to explain that, Senator.

Senator LEAHY. I would love to hear the explanation because I understand that they took—an informant gave them a tip. He failed a lie detector test. To have a lie detector test be the determining factor on something like this—yes, go ahead and explain it.

Mr. MUELLER. Well, first of all, let me clarify that we are not stonewalling your staff, Senator. We have not. We would be happy to provide you with the briefings. As I told you before, in terms of the cost, we have estimates now. The reason for not putting it in public is because there are certain procurement sensitivities that are involved. But we are happy to provide you the briefings that you request, and I do believe we have provided them in the past, certainly with regard to the outline of the SENTINEL program.

With regard to the explosives that were found in Terry Nichols' house, we did search the house way back. In fact, there were a number of searches of the house during the course of the investigation.

Senator LEAHY. You were not the Director at that time.

Mr. MUELLER. I was not, but I know that there were searches of the house back in the wake of the Oklahoma City bombing. We did get an informant or a tip that came from Nichols, as to where additional explosives were buried. We followed up on that, and we found that they were buried under the house, under the earth under the house where they would not have been easily found in the previous searches. It took the additional information by way of Nichols to identify the location of these particular explosives, and we followed through on that tip and found them.

Senator LEAHY. How long after getting the tip was the search made?

Mr. MUELLER. I would have to check. I am not certain of the timeframe.

Senator LEAHY. I think it was a few weeks, but feel free to provide that for the record.

Mr. MUELLER. We will.

[The information follows:]

TIMEFRAME FOR LOCATING EXPLOSIVES IN THE FORMER HOME OF TERRY LYNN NICHOLS IN HERINGTON, KANSAS ON MARCH 31, 2005

On March 1, 2005, the Bureau of Prisons contacted the FBI Denver Field Office regarding information it obtained from an inmate about explosives under the former home of Terry Lynn Nichols. On March 4, 2005, the inmate failed an FBI polygraph exam regarding this information. Although the inmate did not pass the polygraph examination, the FBI continued to review and investigate the information. Additional detailed information about the location and alleged existence of the explosives was received on March 11, 2005, from an FBI source from another FBI Field Office. Based upon the information provided by the sources, the FBI continued to investigate the allegations to determine their veracity. The investigation included, but was not limited to, locating the home and its owner, and obtaining permission to search the premises. On March 31, 2005, the buried cache of explosives was successfully recovered without incident and forwarded to the FBI Laboratory for analysis.

INNOCENCE PROTECTION ACT

Senator LEAHY. In October 2004, the Congress passed and then the President signed the Justice for All Act that had the Innocence Protection Act, the IPA, which I authored. And, Attorney General, at your confirmation hearing you said that you would work with us on IPA, on the Innocence Protection Act.

The Innocence Protection Act authorized a total of $375 million for this program over a 5-year period. This was carefully worked out over months, actually years of negotiations, by everybody from Chairman James Sensenbrenner and Majority Leader Tom DeLay, to myself, to others. We wanted to have effective systems for appointing counsel in death penalty cases. The President, the White House was involved. The President was happy to sign it and stated it when he stepped forward and was to sign it. But now we find that the administration has proposed zero funding on this, and they are trying to figure out a new program, ignoring the work of Republicans and Democrats in both bodies, across the political aisles, across the political spectrum, on a bill the President signed.

Is this a sign to us don't bother to try to form bipartisan coalitions, don't bother to work with this administration, don't bother to work with you or anybody else, because we will just zero it out? I am somewhat troubled, as you may have noticed.

Attorney General GONZALES. Yes, sir. I would not describe it in that fashion. We obviously care very much, the President cares very much about ensuring that those who are facing the death penalty have adequate representation.

Senator LEAHY. I am talking about the IPA. The Innocence Protection Act was part of the bill that the President signed, which has now been zeroed out for the money that was authorized.

Attorney General GONZALES. I thought you were talking about providing lawyers in connection with——

Senator LEAHY. I am talking about the program that the Congress, after years of work, of hearings, put together, signed into law by the President, is now in law, has been basically zeroed out by the administration, and you are basically inventing a new program.

Attorney General GONZALES. I am sorry. I misunderstood you, Senator. I think that the President—this is the DNA initiative, Senator?

Senator LEAHY. Yes.

Attorney General GONZALES. Okay.

Senator LEAHY. And zeroed out the part that we had in there on capital cases.

Attorney General GONZALES. The President has a DNA initiative that was announced and funded prior to the enactment of the Justice for All Act. It has been successful, and it has worked, and we believe that this is the way to deal with ensuring that we provide resources and training so that we can use DNA to clear up the backlog of DNA cases——

Senator LEAHY. Everybody here supports that. I am one of the ones that helped get the funding for that program, so that is not the question. We all want to clear up the backlog in DNA. It is going to help our prosecutors. It is going to help our defense counsel. I am talking about the Justice for All Act with the Innocence Protection part that was carefully negotiated by Republicans and Democrats, signed into law, and is now being zeroed out.

Attorney General GONZALES. Senator, the position of the Department is that the President's DNA initiative is a better way to deal with this problem, and we can do it in a way that requires less money and can be more effective in dealing with the issues relating to the use of DNA.

Senator LEAHY. So basically you are saying ignore what we did in the Congress and the law the President signed with great fanfare and praise.

Attorney General GONZALES. Senator, we believe that the most effective way to deal with this is with respect to the decisions made to fund the DNA initiative announced by this President.

Senator LEAHY. Mr. Chairman, thank you.

Senator SHELBY. Senator Stevens.

NATIONAL SEX OFFENDER REGISTRY

Senator STEVENS. First let me agree with the Senator from Maryland. We do have this National Sex Offender Registry, and that is supposed to help us keep track of these people so that parents can help protect their children from harm. Is there a requirement that these people continue to report their changes in address? There seems to be a policy that these people can just sort of disappear and show up in new communities. How does that happen?

Attorney General GONZALES. They have an obligation to report, Senator. As you might expect, these are criminals and some people do not abide by the rules. And so part of our charge is to try to identify when people move and identify where they are.

Senator STEVENS. Is the law strong enough? Shouldn't we put through a provision that says that if they don't report, they go back to jail?

Attorney General GONZALES. I don't know what the law requires at this time. It may already have such a requirement, but if it does not, I think that would be something that we should be looking at.

Senator STEVENS. I would tell the Senator from Maryland, I would be pleased to join in such a provision to strengthen that.

USA PATRIOT ACT

Let me ask you as a former U.S. attorney about the PATRIOT Act. It expires at the end of this year, and in my judgment, in terms of things we have seen in terms of the working relationship

between agents and making available intelligence without chimneys, it is working very well. Are you seriously urging the Congress to extend the PATRIOT Act?

Attorney General GONZALES. Senator, I agree with you. I think the PATRIOT Act has been effective in protecting America, and I think it reflects a careful balance of protecting our country and respecting our civil liberties and the privacy rights of all Americans.

There are 16 provisions that are set to expire at the end of this year. We have had a good debate about how this Department has exercised those authorities. I think the record shows that the Department has been very careful in the use of these authorities. I think the record also shows that the Act has been effective and, therefore, in my judgment, the PATRIOT Act is deserving of reauthorization.

Senator STEVENS. When the Defense Subcommittee traveled to Iraq, we interviewed some people there who were multinational and multiagency people who had really functioned extremely well because of the PATRIOT Act. I think you ought to bring some of those people in and have them testify to Congress and tell us how that act has changed their lives and increased their ability to track down terrorists and to bring them to justice. It seems to me that there should be no opposition to extending that act and continuing to give that authority to the people who are really trying to seek out terrorists throughout the world.

Mr. Mueller, your agency in particular has used it very effectively. Do you have any comment about it?

Mr. MUELLER. I think we would be going back 10 years if the PATRIOT Act is not reauthorized, particularly those provisions that have broken down the walls in the sharing of information. The ability to share information between the intelligence community and the law enforcement community has been instrumental in securing the safety of United States citizens, both in the United States but also overseas, in allowing us to share information between our various agencies and also with our counterparts overseas. We have testified previously on a number of occasions how absolutely essential it is to have the reauthorization of the PATRIOT Act to prevent additional acts of terrorism. A number of our investigations have been successful in the United States because of our ability to share information and utilize the provisions of the PATRIOT Act.

Senator STEVENS. Well, take the Terrorist Screening Center (TSC), which you commented on in your statement. Could it effectively work without the PATRIOT Act?

Mr. MUELLER. It would be very difficult for it to be able to perform its functions because it would still be beset by walls segmenting information between the intelligence community and the law enforcement community. And, consequently, the PATRIOT Act in its breaking down those walls enables the Terrorist Screening Center to assemble information from a variety of sources to determine the appropriateness of putting somebody on the terrorist screening watchlist and to follow through if that person comes within the United States or attempts to get into the United States.

Senator STEVENS. This is a multiagency effort, as I understand, the Terrorism Center, right?

Mr. MUELLER. Yes, it is.

Senator STEVENS. And in your statement, you said through February 2005 TSC received 21,650 calls, over 3,500 from State and local law enforcement agencies, made over 11,300 positive identifications, and assisted in 340 arrests, including six with terrorist nexus.

Now, none of that would be available without knocking down the walls that the PATRIOT Act knocked down. In the past, they all would have had to go to the top of their agency, and the information would have to be shared at the top of the agency, and the top of the agency would have to be aware of the fact that someone down here had that information. Is that not right?

Mr. MUELLER. The PATRIOT Act broke down those walls, along with rulings of the Foreign Intelligence Surveillance Act court. Between the two of those entities, it broke down the walls, enabling the Terrorist Screening Center to have that record of success.

DIRECTOR OF NATIONAL INTELLIGENCE

Senator STEVENS. Let me shift over to the National Director of Intelligence, and I appreciate your visit. I am sure you visited others. But I see that there are several functions you have mentioned that really now will be integrated with the National Director of Intelligence. And you created a special section within the FBI to deal with that, right?

Mr. MUELLER. That is correct. What we are trying to do is build up within the FBI what is called a Directorate of Intelligence that, from the headquarters perspective, is the brains of intelligence, regardless of whether it comes from a criminal program, a cyber program, a counterintelligence program, or a counterterrorist program, where the agents are collectors. The Intelligence Directorate is that entity that pulls in the information, analyzes the information, and makes certain that that information as analyzed gets to the right policymaker. It may be an agent himself or herself. It could be a supervisor in the FBI. Or it could be somebody at the Central Intelligence Agency (CIA), Defense Intelligence Agency (DIA), or now the Director of National Intelligence.

The other substantial role that the Directorate of Intelligence plays is to identify what we know but, most particularly, what we don't know and establish requirements for intelligence collection in the United States so we have a much fuller picture of the threats that we face in the United States, complemented with the information that may be brought to the table by the CIA, the National Security Agency (NSA), or one of the other intelligence actors. And it is tremendously important for the Bureau to build up this capability, but it would not be able to build up this capability without the information that it now has access to by reason of the PATRIOT Act and rulings of the FISA court.

Senator STEVENS. And it is the act that makes that center operable, right? All these agencies now share information really at the inception of knowledge, right? They come in and they are shared and they are made available throughout the community, and this is an underpinning for the National Director of Intelligence, isn't it?

Mr. MUELLER. As far as our National Director of Intelligence, it absolutely is. We have that capability. But also we complement the National Counterterrorism Center where both the intelligence agencies and the law enforcement agencies share space, have access to our various databases so that there can be in very short order a complete picture of a threat or a group or an individual who presents a terrorist threat. And having the ability to access these databases, having the ability to pull this information together, to analyze it in the National Counterterrorism Center, was made practical and legal by the passage of the PATRIOT Act and the FISA court rulings.

DNA INITIATIVE

Senator STEVENS. Last, Mr. Attorney General, in your discussion with the Senator from Vermont about the DNA concept, it is our understanding the program that is in effect now is a broader one and has been more effective in dealing with DNA and its use in prior convictions and throughout the whole system of the Department of Justice. Is that your feeling?

Attorney General GONZALES. It is hard for me to compare, Senator, but I will say that it has been, in my judgment, very effective in clearing out the DNA backlog and providing training to State and local officials, to help them find missing people. And so it has been very effective.

Senator STEVENS. Has there been a reduction in funding for the DNA effort?

Attorney General GONZALES. No, Senator.

Senator STEVENS. What is the budget this year for?

Attorney General GONZALES. I don't have it at my fingertips, but I will get you that information.

Senator STEVENS. Thank you.

Thank you very much, Mr. Chairman.

Senator SHELBY. Senator Harkin.

Senator HARKIN. Thank you very much, Mr. Chairman.

[The information follows:]

WHAT IS THE BUDGET THIS YEAR FOR DNA INITIATIVE?

In fiscal year 2004, Attorney General John Ashcroft announced the awarding of nearly $95 million in DNA grants nationwide as part of President Bush's DNA initiative, Advancing Justice Through DNA Technology. The awards represent the greatest investment in DNA technology to date—more than twice the amount of any previous year's funding—and the first grants to be awarded under the President's initiative. In fiscal year 2005, approximately $168 million will go to activities under the DNA initiative. The fiscal year 2006 request includes an increase of $69 million for a total funding level of more than $236 million.

BYRNE GRANTS

Senator HARKIN. Mr. Attorney General, back to Byrne grants, funding for the Byrne grant program has been eliminated from the budget. One of the rationales offered is that the program has not demonstrated a satisfactory level of performance results. However, the law enforcement people in Iowa tell me there has never been any effort on the part of the Bureau of Justice Assistance to actually measure the performance results of this program.

My question is: Has there been a valid effort to determine if Byrne dollars are working nationally as well as they are in Iowa?

Attorney General GONZALES. I believe there has been a valid effort to determine whether or not these dollars are being used effectively. Again, Senator, as I indicated in response to an earlier question, there are a variety of reasons why a decision is made not to continue funding a certain program. That may not reflect a decision that the program is not an effective program, but may reflect a determination that there are other priorities that deserve funding. There may be other ways to provide resources to State and local officials to address the problem, and that is why the decision was made to deal with the Byrne grant program in this fashion.

Senator HARKIN. Could you provide to the subcommittee a list of the efforts that were made by the Bureau of Justice Assistance to measure the performance results of this program?

Attorney General GONZALES. I will try to provide you that information, Senator.

Senator HARKIN. I would like to see that because I am told that there never was any effort to really measure, so I would like to kind of get to the bottom of that one.

[The information follows:]

EFFORTS THAT WERE MADE BY THE BUREAU OF JUSTICE ASSISTANCE TO MEASURE THE PERFORMANCE RESULTS OF THE BYRNE JUSTICE ASSISTANCE GRANT PROGRAM

There are a number of efforts underway to measure whether Byrne dollars are working nationally. The Byrne Justice Assistance Grant (JAG) program is currently undergoing an Office of Management and Budget Program Assessment Rating Tool (PART) review to assess Byrne JAG's purpose and design, strategic planning, management, and results and accountability. While final National Institute of Justice (NIJ) evaluations of Byrne JAG are not yet completed, many state-initiated independent evaluations have been conducted, including a study, "Multi-Jurisdictional Drug Task Forces in Ohio," commissioned by the Ohio State Administering Agency and conducted by the University of Cincinnati and Kent State University. Another example is in Oklahoma, where the Oklahoma District Attorneys Council contracted with the University of Oklahoma to conduct a comprehensive review of the evaluation activities of other states that fund drug task forces. Through a literature review, they found that 39 states have in the past or are currently conducting independent evaluations of their Byrne JAG-funded drug task forces and other grant-funded programs. Phase II of NIJ's evaluation of Byrne JAG-funded Multi-Jurisdictional Drug Task Forces will build on the effort to provide a complete picture of the overall effectiveness of the Bureau of Justice Assistance of the Byrne JAG Program.

JUSTICE ASSISTANCE GRANTS

Senator HARKIN. Last year, the President's budget merged the local law enforcement block grant with the Byrne program and called it the Byrne justice assistance grant. It required an entirely new application process, set entirely new criteria. The merger of the programs was particularly painful for States like Iowa, in which the majority of our people do not live in a major city.

Now, given that the budget eliminates this newly merged Byrne program, which is now called the Byrne justice assistance grant program, I would be interested in learning exactly how much we have spent on merging the two programs and administering it for just 1 year? In other words, we merged them last year. You set up new criteria, set up a new application process, merged the two, did it for 1 year, and now you are eliminating it. What did it cost us to do that for 1 year? And why did we do it?

Attorney General GONZALES. I don't know that information, Senator, but I will try to get that for you.

[The information follows:]

WHAT DID IT COST TO MERGE LOCAL LAW ENFORCEMENT BLOCK GRANT WITHIN THE BYRNE PROGRAM FOR 1 YEAR AND WHY DID WE DO IT

Proposed to streamline justice funding and grant administration, the Edward Byrne Memorial Justice Assistance Grant (JAG) Program allows states, tribes, and local governments to support a broad range of activities to prevent and control crime based on their own local needs and conditions. JAG blends the previous Byrne Formula and Local Law Enforcement Block Grant (LLEBG) Programs to provide agencies with the flexibility to prioritize and place justice funds where they are needed most. As the Office of Justice Programs' Bureau of Justice Assistance (BJA) works to administer JAG requests for state and local grantees, there has been a savings—not cost—associated with the program's streamlined application, review, and award processes. Savings considerations include: the mandatory match requirement was eliminated, allowing states to measure their own match needs and implement at the state level if indicated; awards are distributed up front instead of on a reimbursement basis, giving recipients immediate control over their funds; direct recipients can earn interest on their awards, generating additional funding for future justice projects; projects can be funded beyond a 4-year period, allowing successful initiatives to receive funding to continue and expand their efforts; various fiscal and programmatic reports have been replaced with fewer, but more targeted, reporting, saving State Administering Agencies (SAA) and local programs valuable staff time and resources; and mandatory set-asides have been eliminated, encouraging states and communities to spend justice funds more strategically.

Senator HARKIN. There is something bureaucratic going on here, and I am not quite certain what it is. The reason for my question is because my law enforcement people in Iowa—and I checked in the Midwest. These Byrne grants have been a lifeline for the coordinated efforts for drug intervention, for arrests, getting meth labs; as I mentioned in my opening statement, even in terms of programs for rehabilitation. And they have worked from everything I have ever seen. And so I am really trying to figure out why this rationale for eliminating it after we just merged it for 1 year. I know you say you have priorities and stuff, but I am wondering about what has more priority than this and why this was done away with. This is not just being cut. This is eliminated. That is a big body blow to law enforcement all over.

Attorney General GONZALES. Again, Senator, in cases like this, decisions are made as to which programs are the most effective and what's the most efficient use of taxpayers' dollars. And so there may be a particular problem that is being addressed by the expenditure of Byrne grants that we believe can be more efficiently dealt with through other programs or coordinating resources in a different kind of way. And I guess what I want to do is reassure you and the people in your State that we, like you, consider these drug issues very, very serious and that we ought to be looking at ways to try to deal with this in the most effective and most efficient way. We are committed to work with people in your State to address these problems.

Senator HARKIN. The only thing I am asking you, again, to give to the subcommittee, is the efforts that have been made to determine the outcomes results of the Byrne grant program.

Attorney General GONZALES. I will try to get that to you, Senator.

[The information follows:]

EFFORTS THAT WERE MADE BY THE BUREAU OF JUSTICE ASSISTANCE TO MEASURE THE PERFORMANCE RESULTS OF THE BYRNE JUSTICE ASSISTANCE GRANT PROGRAM

There are a number of efforts underway to measure whether Byrne dollars are working nationally. The Byrne Justice Assistance Grant (JAG) program is currently undergoing an Office of Management and Budget Program Assessment Rating Tool (PART) review to assess Byrne JAG's purpose and design, strategic planning, management, and results and accountability. While final National Institute of Justice (NIJ) evaluations of Byrne JAG are not yet completed, many state-initiated independent evaluations have been conducted, including a study, "Multi-Jurisdictional Drug Task Forces in Ohio," commissioned by the Ohio State Administering Agency and conducted by the University of Cincinnati and Kent State University. Another example is in Oklahoma, where the Oklahoma District Attorneys Council contracted with the University of Oklahoma to conduct a comprehensive review of the evaluation activities of other states that fund drug task forces. Through a literature review, they found that 39 states have in the past or are currently conducting independent evaluations of their Byrne JAG-funded drug task forces and other grant-funded programs. Phase II of NIJ's evaluation of Byrne JAG-funded Multi-Jurisdictional Drug Task Forces will build on the effort to provide a complete picture of the overall effectiveness of the Bureau of Justice Assistance of the Byrne JAG Program.

HIDTA PROGRAM

Senator HARKIN. I would appreciate that. Last—well, no, two quick things. High-intensity drug trafficking (HIDTA) program, the budget has been slashed by 50 percent, and it says, "The Department's budget states that the program will be redesigned to focus on efforts to stop drugs entering the country." Well, what effect is that going to have on the Midwest HIDTA program, high-intensity drug trafficking area program in the Midwest, which is engaged in fighting a meth epidemic—and it is an epidemic—in Iowa, South Dakota, Missouri, Nebraska, that whole area there. That is after the drugs have entered the country. So if we are slashing it by 50 percent, again, we are going to have a problem in funding the high-intensity drug trafficking areas in the upper Midwest.

Again, I don't know how we are going to continue to do this by slashing it by 50 percent.

Attorney General GONZALES. HIDTA has traditionally been within the Office of National Drug Control Policy. That is a policy-focused organization, and we believe that these funds ought to be administered through the Department of Justice, which has as its primary focus law enforcement. It just makes sense, quite frankly. The question then is whether——

Senator HARKIN. I don't mind that. That is fine.

Attorney General GONZALES. And in doing so, we are able to take the organized crime drug enforcement task force (OCDETF) program and the HIDTA programs under sort of the joint supervision of the Deputy Attorney General and make sure that they remain a priority, both of those programs.

I want to reassure everyone that the fact that it is moving into the Department of Justice does not mean that we are going to in any way merge the two programs. I think OCDETF has more focus on national and international programs and HIDTA is more regional.

The fact that the monies are being reduced to HIDTA does not mean that there will be a change in the first year with respect to providing funding for intelligence-sharing and critical infrastructure. Those will be funded with respect to all the HIDTAs. In 2006, every single HIDTA will continue. We will take the HIDTA funding

and we will allocate it according to priorities: first intelligence, then infrastructure, and then we will look at each of the HIDTAs and have the HIDTAs make the best case as to where the remaining dollars should go. And that is what we intend to do with respect to the HIDTA program going forward.

Senator HARKIN. Thank you, Attorney General.

DEFINITION OF TERRORISM

Mr. Director, since September 11, 2001, the FBI's counterterrorism workload, as you stated in your written statement, has more than tripled, from 9,340 cases to over 30,000 in fiscal year 2004. My question is: How much of this is redefining criminal and drug activities as "terrorism?" Do we have a definition of terrorism? And has it changed in the last 3 years? Or are we just seeing a tripling of terrorist activities? How much of this is just redefining normal criminal—not normal, but abnormal criminal and drug activities as just, oh, this is terrorism, justifies more money?

Mr. MUELLER. No, I would say it is not redefinition. There may be a little of that where cases, if you have a terrorist group, an acknowledged terrorist group that is engaged in criminal activity and the results of that criminal activity, the funding is going overseas to Palestine or Lebanon or elsewhere to support terrorist activities, it may have been identified principally as a criminal case but now is identified as a terrorist case. I think that is a very, very small sliver of those cases where there was some redefinition.

But the fact of the matter is we now have—we had 1,300 agents pre-9/11; we now have almost 3,000 agents that are directed to counterterrorism. We had on our joint terrorism task forces prior to September 11 just over 900 Federal, State, and local officers serving on those joint terrorism task forces. There were only 34 task forces. We now have 103 joint terrorism task forces, and we have 3,700 Federal, State, and local officers serving on them.

Terrorism investigations are not directed just at that person who is gathering the explosives, but it is those persons who are recruiting, those persons who are sending persons to camps overseas, those persons who are engaged in criminal activity to develop funding that supports terrorism. And so we have been far more effective because we have the additional personnel, and because of the breakdown of the rules separating intelligence and the criminal side, to address those persons within the United States who either would want to conduct a terrorist attack or are in some ways supporting terrorism.

Senator HARKIN. Well, Mr. Director, my time is up. You know, we are doing everything. We are closing down cells overseas. I hear about all the successes we are having in Afghanistan, we are having in other parts of the world in closing down these networks. And yet terrorism has tripled in this country. I just have this uneasy feeling that we are just redefining it and putting a bigger blanket over what is just normal—not normal, but criminal activities, drug activities, that type of thing, and just calling it "terrorism."

Mr. MUELLER. I would have to disagree.

Senator HARKIN. Well, do you have a definition of "terrorism"?

Mr. MUELLER. There is a definition in title 18 that we utilize, yes. I would have to get you the specific definition, but——

Senator HARKIN. It is in title 18. Has that changed in the last 3 years?

Mr. MUELLER. No.

Senator HARKIN. It is the same today as it was before?

Mr. MUELLER. No, but there are various aspects to terrorism that include fundraising, training, and recruiting; we have many ongoing investigations into those aspects of it that we did not investigate in the past. The large number of open terrorism investigations that you reference relate in large part to a number of these other areas that are important in addressing terrorism.

Senator HARKIN. Thank you.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Murray.

Senator MURRAY. Thank you very much, Mr. Chairman.

NORTHERN BORDER

Attorney General Gonzales, as I talked about in my opening statement, I have some real concerns about the challenges facing northern border States with respect to Federal, typically border-related, cases. And as you know, many of these cases are being referred to local jurisdictions by Federal agencies and the U.S. Attorney's Office. And I, like everyone, fully support the efforts to increase the Federal agents along the border. It is important. But as those numbers have increased post-9/11, more criminals are being apprehended for drug smuggling, money laundering, and other crimes on the border. And as you know, these cases are often declined and referred for prosecution and detention to local jurisdictions by the U.S. Attorney's Office.

Now, the southwestern States have a Federal program for reimbursement of costs run out of the Department's Office of Justice Programs. It is the Southwest Border Prosecution Initiative. But there isn't any program like that for the northern border States, and I think it is long past time to do that because these cases really put an immense burden on cities and counties in my State and across the northern border.

In Whatcom County in my State, which is where I–5 crosses the border into British Columbia, they are spending over $2 million a year to handle these federally initiated declined and referred cases. And those costs are placing a tremendous strain on local jurisdictions. In fact, the situation in Whatcom County is already forcing that county to release criminals from the county jail in order to make room for the increased referred caseload.

Now, back in fiscal years 2004 and 2005, as part of the omnibus appropriations bills, your Department was asked to do a study on the need to expand the Southwest border program to the northern border States, and to my knowledge—and I am not going to hold you accountable; I know you are new to the role. But to my knowledge, that study has not been completed or done, which is disconcerting to all of us who have been involved in this.

But my question to you today is: Would you support an effort to expand the Southwest Border Prosecution Initiative program to our northern border States?

Attorney General GONZALES. Senator, I would have to look at all the facts before I could answer that question, quite frankly. I am certainly aware of the strains that exist on all the border States. I understand your concerns.

With respect to the study, I was not aware of the study, but I am now aware of the study and I will find out where we are on that. And maybe you and I can have a further dialogue about what we can do to try to help your State deal with these additional costs.

[The information follows:]

STATUS OF THE STUDY TO EXPAND THE SOUTHWEST BORDER PROSECUTION INITIATIVE PROGRAM TO THE NORTHERN BORDER, AND COMMENT ON THE EXPANSION OF THE PROGRAM

The Department does not support an effort to expand the Southwest Border Prosecution Initiative to the Northern Border at this time.

Although the United States Attorneys' Offices along the Northern Border believe that the expansion of this grant program to the Northern Border districts would be helpful in that they have similar border issues and limited resources for prosecutions, a review of the Department's statistics indicate that the declination rate for federal prosecutions is higher along the Southwest Border because of the substantial number of illegal immigrants who cross that border daily, but who are not prosecuted federally because of limited resources and other issues.

The study of immigration cases in Northern Border districts to which you refer was submitted to the Committee on Appropriations on August 11, 2004. A copy of the report is inserted.

U.S. DEPARTMENT OF JUSTICE,
Washington, DC, August 11, 2004.

The Honorable FRANK R. WOLF,
Chairman, Subcommittee on the Departments of Commerce, Justice and State, the Judiciary, and Related Agencies, Committee on Appropriations, U.S. House of Representatives, Washington, DC 20515.

The Honorable ERNEST F. HOLLINGS,
Ranking Minority Member, Subcommittee on the Departments of Commerce, Justice and State, the Judiciary, and Related Agencies, Committee on Appropriations, U.S. Senate, Washington, DC 20510.

The Honorable JOSE SERRANO,
Ranking Minority Member, Subcommittee on the Departments of Commerce, Justice and State, the Judiciary, and Related Agencies, Committee on Appropriations, U.S. House of Representatives, Washington, DC 20515.

The Honorable JUDD GREGG,
Chairman, Subcommittee on the Departments of Commerce, Justice and State, the Judiciary, and Related Agencies, Committee on Appropriations, U.S. Senate, Washington, DC 20510.

DEAR MR. CHAIRMAN, SENATOR HOLLINGS, CONGRESSMAN SERRANO, AND SENATOR GREGG: The Conference report accompanying the Fiscal Year 2004 Appropriations Act for the Department of Justice (Public Law 108–199), directs the Department of Justice to submit to the Senate and House Appropriations Committees, a report on the number of Northern Border Prosecutions referred to state and local prosecutors. This report provides the requested information with the U.S. Attorneys' caseload and referrals on the Northern Border as compared to those on the Southwest Border.

The report was recently approved by the Office of Management and Budget. Please feel free to contact me if you or your staff have additional questions.

Sincerely,

PAUL R. CORTS,
Assistant Attorney General for Administration.

REPORT OF THE DEPARTMENT OF JUSTICE REGARDING IMMIGRATION CASES IN THE NORTHERN BORDER DISTRICTS

INTRODUCTION

The conference report accompanying the Consolidated Appropriations Act of 2004 requested a report from the Department of Justice regarding the number of cases referred to local prosecutors from Federal arrests along the Northern Border. The conference report adopts by reference the House report language directing the Department of Justice to report the following:

Southwest Border Prosecutions.—The Committee recommends $40,000,000 to assist State and local law enforcement agencies, including prosecutors, probation officers, courts, and detention facilities along the Southwest border with the handling and processing of drug and alien cases referred from Federal arrests. The Committee directs the Department of Justice to study whether a similar number of cases are being referred to local prosecutors from Federal arrests along the Northern border. The Department shall report its findings to the Committee within 90 days of enactment of this Act.

This report summarizes three categories of information relative to Immigration Matters considered by the United States Attorneys Offices in Northern Border Districts.[1]

BACKGROUND

Within the Department of Justice, United States Attorneys' Offices have responsibility for prosecuting immigration offenses. Typically immigration cases are referred to United States Attorneys' Offices by agents for the Department of Homeland Security, including the Bureau of Immigration and Customs (ICE), the Bureau of Customs and Border Protection, and Border Patrol, but may also be referred by other federal agencies and local officers.

MATTERS RECEIVED, CASES FILED AND DECLINATIONS BY UNITED STATES ATTORNEYS OFFICES

This chart sets forth the Matters Received,[2] Cases Filed,[3] and Declinations[4] for immigration offenses considered by United States Attorneys' Offices in the Northern Border Districts during fiscal years 2000–2003.

NORTHERN BORDER DISTRICTS IMMIGRATION CASELOAD DATA

	2000	2001	2002	2003
Matters Received	1,026	902	1,030	1,136
Cases Filed	800	704	780	905
Matters Declined	270	272	290	263

This chart sets forth the Matters Received, Cases Filed, and Declinations for immigration offenses considered by United States Attorneys' Offices in the Southwest Border Districts during fiscal years 2000–2003.

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[1] For the purpose of this Report, Northern Border Districts are the District of Alaska, the District of Idaho, the Northern District of Illinois, the Northern District of Indiana, the District of Maine, the Eastern and Western Districts of Michigan, the District of Minnesota, the District of Montana, the District of New Hampshire, the Northern and Western Districts of New York, the District of North Dakota, the Northern District of Ohio, the Western District of Pennsylvania, the District of Vermont, the Eastern and Western Districts of Washington, and the Eastern and Western Districts of Wisconsin.

[2] *Matters Received*.—All proceedings on which Assistant United States Attorneys (AUSA) spend one hour or more of time and the AUSAs entry are recorded in their case management system. Matters Received includes criminal referrals from investigative agencies, and matters that may be handled as misdemeanor cases in U.S. Magistrate Court. Matters Received does not include criminal miscellaneous matters (requests for arrest warrants, search warrants, etc.), petty offenses or infractions, or matters that are immediately declined.

[3] *Cases Filed*.—All proceedings for which a significant paper has been filed in court, other than U.S. Magistrate Court and below the appeals court level. Significant papers include indictments and informations filed in district court.

[4] *Declinations*.—All proceedings terminated (closed) during the reporting period without ever having attained case status.

SOUTHWEST BORDER DISTRICTS [1] IMMIGRATION CASELOAD DATA

	2000	2001	2002	2003
Matters Received	10,023	10,042	10,658	14,175
Cases Filed	7,942	7,851	8,805	10,933
Matters Declined	146	111	227	987

[1] For the purpose of this Report, Southwest Border Districts are the District of Arizona, the Southern District of California, the District of New Mexico, and the Southern and Western Districts of Texas.

CASES REFERRED FOR LOCAL PROSECUTION

The figures set forth in this report represent immigration cases handled by the United States Attorneys' Offices for the Northern and Southwest Border districts. United States Attorneys' Offices do not maintain records of cases referred for local prosecution by Federal Investigative agencies. Offenses may be referred to local jurisdictions by federal law enforcement agents without involvement from the United States Attorney's office.

This report provides comparison data on caseload for the Northern Border districts and the Southwest Border districts. The matters received and cases filed in the Northern Border districts are approximately one-tenth of those of the Southwest Border. The declinations for the Northern Border are greater in fiscal year 2000–2002 than the Southwest Border. However, in fiscal year 2003, the declinations for the Southwest Border are almost four times greater than those of the Northern Border. Declinations by the USAO would not suggest that these matters could or would be prosecuted by the state and locals.

The United States Attorneys' Case Management system contains a declination code which indicates that a criminal suspect will not be prosecuted by the United States Attorney's Office but may be considered for prosecution by another authority. The referral is then returned to the referring federal investigative agency; however, we do not have the ability to determine whether that agency refers that matter to a state or local authority.

Senator MURRAY. Okay. Well, I would like to know what you want these communities to do short of releasing the criminals.

Attorney General GONZALES. Well, we are committed to working with them. Obviously, no one wants criminals running around in the streets, and we are committed to working with your communities to see if we can find additional resources, and to see whether or not there are additional things that we can do at the Federal level. But I want to assure you that this Attorney General does not want to have criminals released onto the streets because we do not have the facilities to deal with them. So I look forward to working with you on this very, very difficult issue.

Senator MURRAY. I would very much like to do that because we have tried to pursue this for several years now, and our communities really are at, you know, their last strain here.

Attorney General GONZALES. Thank you, Senator.

Senator MURRAY. So I would like to work with you to find some additional resources to help them out.

I also wanted to ask you about the U.S. Attorney's Office because it appears they really lack some of the resources to handle the caseloads that are being forced on them as well. Is this something your agency is trying to address to make sure that our U.S. Attorney's Offices can handle the cases that are being brought forward?

Attorney General GONZALES. One thing that is currently ongoing is we are engaged in a review across the country to evaluate the caseloads amongst the various U.S. Attorney's Offices and to assess whether we have the proper allocation of resources across the country.

NEEDS OF THE CRIMINAL JUSTICE SYSTEM

Senator MURRAY. Okay. Well, I would like to hear more specifically from you on that because I am very concerned about that, too, and some of the fallout we have seen.

Also, in my State and in other States, the increase in Federal police presence, you know, we welcome it. However, we are seeing an increase in demand for Federal courtrooms, for judges, for detention facilities, more regional justice centers. In fact, in my State some of our Federal agents are now driving criminals 2 to 3 hours each way just to have their first appearances in Federal courtrooms. And I am really concerned about the costs associated with that system, as well as, you know, the delay it is taking in getting these individuals before a Federal judge. And I would like to ask you how you think we are going to meet those needs.

Attorney General GONZALES. Well, I am likewise concerned, Senator. It is a rising cost for the budget of the Department of Justice. We are looking at various ways that we can reduce those costs. For example, it makes no sense that we have to drive someone a long way in order to bring them to justice. So are there ways that we can reduce the costs? This is something that we are looking at; particularly, it is a problem that is likely to increase as we look at issues like enforcing our borders. We are going to be detaining more people. As we continue to enforce the laws that are passed by this Congress, we have to do something with these people. And so this is a cost that I have a great deal of concern about. The Department is looking at developing a strategy that looks at the total cost of someone that goes through the justice system from the beginning, not just when they are in prison or afterwards, but from the time that they are arrested. There are definite costs, fixed costs that we cannot avoid.

And so I have asked for an examination of how we can better coordinate how we enforce justice around this country.

Senator MURRAY. Okay. Well, I would like to hear more from you as quickly as possible specifically how we can do that, because we want criminals apprehended, but just dumping the costs on our local communities means they end up out on the street. And that is where I don't think you want any of them to end up.

DRUG CARTELS

One more question, Mr. Chairman, for the Attorney General, and that is: According to a 2001 Drug Enforcement Administration estimate, drug cartels make up 80 percent of America's methamphetamines, and these cartels require about 200 metric tons of ephedrine and pseudoephedrine each year, or about 10 percent of the world's output of these legal chemicals. I am really concerned that we may be missing an opportunity to work with chemical factories abroad to help prevent some of the cartels from getting their hands on the chemicals. And if either one of you could talk to me about what we are doing to try and break these cartels' supply chain of ephedrine and pseudoephedrine, I would really appreciate it.

Attorney General GONZALES. I can tell you that we are working with law enforcement officials in other countries. I believe that this

problem cannot be effectively dealt with without the cooperation of other countries. And so we are working in that respect, and I think we are making some progress. Obviously, more needs to be done, and as I have traveled the country in these first 2½ months, I have been surprised when I talk to law enforcement officials, the two issues that they raise as the most pressing concerns for them are the explosion of meth labs, particularly these mom-and-pop labs, and gangs.

And so for that reason, both of those have become a priority for me. I have asked the folks within the Department to make sure that we are doing everything that we can do under existing authorities to address this problem, and one, of course, is communicating with our counterparts in other countries regarding the supply of ephedrine and pseudoephedrine.

Senator MURRAY. Mr. Mueller, do you have any comment on any of that?

Mr. MUELLER. I have not looked at this issue in a while, but I know that both DEA and Customs had a substantial program looking at those manufacturers of ephedrine and pseudoephedrine overseas and attempting with our counterparts overseas to track those shipments. I also know that there is a substantial undertaking within the United States in those stores that sell quantities of ephedrine or pseudoephedrine to monitor those sales.

Senator MURRAY. We are making some progress there, but I think unless we look at the supply chain from some of the cartels, we are not going to get to where we need to be. And meth is probably the biggest issue I hear about, particularly in our rural counties across Washington State, and the impact it is having on their communities.

Thank you, Mr. Chairman.

Senator SHELBY. Thank you.

Senator Kohl.

Senator KOHL. Thank you, Mr. Chairman.

CONVICTED SEX OFFENDERS

Mr. Attorney General, as a point of information, when sex offenders and pedophiles are released from prison, are they adjudged to no longer be a threat to society, or have they simply served their term?

Attorney General GONZALES. Well, they certainly have served their term. I for one would not concede that they are no longer a threat to society.

Senator KOHL. So when they are released, they have served their term.

Attorney General GONZALES. They have served their term, but there are ongoing obligations. They have an obligation, for example, to register so that law enforcement authorities know where they are.

Senator KOHL. I appreciate that. But, you know, if there is an issue out there that really, really ticks people off, it is the existence of these sex offenders out there in our society, registered or not—I mean, you know, if you know that one lives on the next block, what do you do about it? You are really sort of powerless to deal

with the fact. You may be scared as hell to know, but there is not anything you can do about it.

I am not holding you accountable. I am suggesting that we in our society are not dealing properly with sex offenders, convicted sex offenders, who, to my knowledge, for the most part are simply released back into society after they have served their 2 or 5 or 10 years. Families are scared as can be.

I talked to a friend of mine who lives in Illinois just yesterday, and she was talking about the issue, and she told me, "If there is one thing you can do, just one thing to make my life easier, and life easier in my neighborhood, it is to do something about these sex offenders who are still out there, released from prison," and, she says, fully capable and she expects that they will continue to commit sex offenses and molest children, which we cannot tell her she is wrong.

Attorney General GONZALES. Senator, I cannot tell her that she is wrong.

Senator KOHL. She said to me that if a person is convicted of a sex offense or a pedophile offense, they should be put in jail and not released until somebody attests to the overwhelming likelihood that they will not commit this kind of a crime again. Wouldn't you agree?

Attorney General GONZALES. I think in an ideal world, Senator, anyone who is a danger to our children, arrangements should be made—everything should be done within the limits of our Constitution to ensure that those folks, like pedophiles, do not have access to our children.

It seems to me that it is certainly a good start—it may not be where we want to end up, but it is certainly a good start to provide as much information as we can to parents and let them make the decisions or judgments about what they can do to protect their families.

Now, is there more that we can do? I would be happy to sit down and talk with you about that because I have got two young boys, too, and I worry about them.

Senator KOHL. Sure.

Attorney General GONZALES. And I do not want any, you know——

Senator KOHL. If a person is adjudged to commit a crime because they are criminally insane and, you know, they go to prison for an indefinite period of time, it is my understanding that they will not get out until they are said to be no longer criminally insane. Isn't that true?

Attorney General GONZALES. That is correct.

Senator KOHL. In large part, this is no different, is it?

Attorney General GONZALES. I don't know if I'm qualified, quite frankly, Senator, to render that opinion, but I think it is certainly a question that ought to be asked and one that we ought to be discussing.

BYRNE GRANTS

Senator KOHL. On the Byrne grant program, I know you have been really pummeled on it, but I just want to add my 2 cents. Last year, it was $700 million in both discretionary and formula funds,

and as you know, they pay for State and local drug task forces, community crime prevention programs, substance abuse treatment programs, prosecutions, many other local crime control programs. And you ask any sheriff or police chief around the country, and I guarantee you back in my State of Wisconsin, which I think is not unusual, and they will tell you that this Byrne grant program is the backbone of Federal aid for local law enforcement. The backbone.

Now, if they are right, then I would like to hope that you might be willing to reconsider your position on Byrne grant programs. You know, hearings of this sort are for a purpose. We listen to you, you listen to us; we go back and think about what you said, you go back and think about what you are hearing. Otherwise, the hearing has no purpose, right?

Attorney General GONZALES. That is correct, Senator.

Senator KOHL. And I am telling you, this Byrne grant program, if you ask some of your people to look at it more closely, I believe that you will conclude that it is one Federal program that deserves support.

Attorney General GONZALES. We are always looking at these kinds of issues, Senator, and we are looking at ways to make sure that not just Federal officials but also State and local officials have the necessary tools they need to deal with the problems that confront our society.

Senator KOHL. Thank you.

FBI INTELLIGENCE ANALYSTS

One question for Director Mueller. In 2002, the Inspector General of the Justice Department found that, "The FBI lacked the ability to connect the dots or establish relationships among varied pieces of information." Nearly 4 years after 9/11, the FBI's analytical capabilities are still often limited, as you know, to supporting individual cases. As everyone knows, part of the problem is the inadequate number of qualified intelligence analysts at the Bureau, and in your most recent proposal, you asked for money to hire 499 more analysts to improve this vital capability. However, last year, your goal was to hire 787 analysts, and you only hired about 173. Nearly 32 percent of FBI's analyst positions are still vacant. Is the FBI capable of hiring enough qualified analysts to fill these positions? And if so, do you have the capability to train that many analysts?

Mr. MUELLER. By the end of this year, I believe we will be fully hired up on our analysts. We did fall behind last year, but we made it up in the beginning of this year through some innovative methods for getting analysts on board. I can tell you that on September 11 we had 218 analysts in counterterrorism; we now have 808 analysts working in counterterrorism.

I also would dispute, I think, some of the premise of the question in terms of our analysts solely doing case support work. I would be happy to provide you a full portfolio of our intelligence products. I think they are first-rate. We are doing first-rate assessments. We have provided, I think, close to 8,000 intelligence investigative reports over the last several years. We have, I believe, close to 200 reports officers. We had none before September 11.

I believe that we are not where we ultimately want to be, but we have made substantial strides, particularly over the last 6 to 8 months, where much of the preparatory work that we were doing to bring these people on board had been done, but we then had to execute.

With regard to training, all of our analysts are required to go through a training program. By the end of this year, we are expecting that close to 1,000 will have gone through that training program down at Quantico. That, again, had to be established from scratch in the wake of September 11, but it was established and I believe it is a first-rate course at this point.

Senator KOHL. Thank you.

JUVENILE JUSTICE PROGRAMS

One last question for you, Mr. Attorney General. Juvenile justice and delinquency programs are allocated, as you know, $187 million in the President's budget for next year. This is about half of what was allocated last year. So we are talking about, you know, a 50-percent cut from last year's number.

I hope you are not concluding that juvenile justice programs are not very important and that Federal funding for juvenile justice programs is not very, very important. And, you know, the only way that we attest to that here in large part—not entirely—is by allocating a certain amount of money to States for juvenile justice programs. And these programs really work. You know, there are several of them in our State. I am not going to go into them in detail.

One school that was built outside of Racine, Wisconsin, is the Southern Oaks Girls School. It built a new mental health wing with Federal funds to provide counseling service for the girl inmates, and the school's administrator says that there is a 56-percent drop in violent behavior since the new mental services have been offered at that school.

Now, this is just one of many, many successes in the program, and I would like to hope that juvenile justice funding is something that the administration continues to regard as important and does not put on the chopping block.

Attorney General GONZALES. Well, addressing the juvenile justice issue is important. Juveniles represent the future employees and the future leadership of our country and the future leaders of communities around the country. And so we need to do what we can to try to help wayward youth.

From the Department's perspective, obviously our primary focus is on enforcement, to ensure that juveniles who engage in criminal behavior are, in fact, held to account. But a successful juvenile justice program has got to do more than prosecution and enforcement. You have got to look at education. You have got to look at rehabilitation. You have got to look at mentoring programs.

I do agree with you that there are certain juvenile justice programs that should continue to be supported.

Senator KOHL. I thank you, and I thank you, Director Mueller.

Thank you, Mr. Chairman.

Senator SHELBY. Thank you, Senator Kohl.

ADMINISTRATIVE SUBPOENAS

Attorney General Gonzales, regarding the PATRIOT Act, it is my understanding that the USA PATRIOT Act is up for renewal and so forth. It would give the FBI the authority to use administrative subpoenas to fight terrorists and spies. I personally think the FBI should have every constitutional tool available to help fight terrorists.

My question to you: Are administrative subpoenas a good addition to the toolbox? In other words, what do you gain as the chief law enforcement officer—and I will address this to Director Mueller, too—and what do the American people lose? This has been talked about a lot, as you know.

Attorney General GONZALES. I am aware of that, Mr. Chairman. Let me first begin by emphasizing that administrative subpoenas are not part of the provisions that are subject——

Senator SHELBY. They are not part of it?

Attorney General GONZALES. Part of the provisions subject to reauthorization of the PATRIOT Act. But with respect to administrative subpoenas——

Senator SHELBY. But they have been proposed, have they not?

Attorney General GONZALES. They have been proposed as an additional necessary tool. Administrative subpoenas are a tool that is available to various other agencies to deal with a wide variety of other criminal conduct, such as health care fraud. And I think my view is that if you can use an administrative subpoena to go after the bad conduct of doctors, why can't you use this tool to go after terrorists?

Oftentimes, it is in terrorism cases where speed is essential, speed and gathering information. And there may be an instance where you need to move very, very quickly in accessing information which is held in the hands of third parties, and so you do not have the same level of expectation of privacy, and you need to be able to get that information from a third party, and that is why we think it is a valuable tool.

Senator SHELBY. Director Mueller.

Mr. MUELLER. I know it would be a very valuable tool for us. As the Attorney General has indicated, it is authorized in drug-trafficking cases, crimes against children, health care fraud, and also for the Secret Service where there is a threat against one of its protectees. And the reason is exemplified there. There is a threat, and the Secret Service may need to get information about where a person is staying, what kind of communications device he or she is using. And the administrative subpoena gives the Secret Service the ability to get that information quickly, as the administrative subpoena would give us the ability to get that type of information exceptionally quickly.

Now, you ask what is the benefit to those who are served the subpoena. One is their right to challenge it. But it also gives us the right to enforce it. The proposals require the authorization of the Attorney General for an order directing that it be kept secret for a period of time, and then the Attorney General would have to determine when that level of secrecy comes off.

So it provides a balance between giving us the capability very swiftly to get the information we need, but it also gives those who are served the subpoena some benefits that in other cases they would not have.

JUDICIAL SECURITY

Senator SHELBY. Judicial security, Mr. Attorney General. Recent violence in courthouses in the Southeast and in the Midwest have raised significant concerns about the safety of the judges, jurors, attorneys, and even the public who appear in court. I understand that you have ordered a review of judicial security measures. Are you ready to give us a report on that? Would you do that for the record? Or where are you?

Attorney General GONZALES. We are close, Mr. Chairman, expect the results of that report shortly. Let me again repeat what I have said often about this issue. It is intolerable that we have judges in any way fearful for their lives or safety or fearful for the lives or safety of any family member. And so we are working as hard as we can to ensure that we have done what we need to do to protect our judges.

AGENTS FOR COUNTERRORISM

Senator SHELBY. Director Mueller, the FBI is on pace to need an additional 700 or 800 agents for terrorism investigations, which are not supported by your budget request. Since 9/11, the FBI has relied on agents from other divisions to handle its terrorism caseload. While you have permanently shifted 480 agents to counterterrorism, I believe back in 2002, it does not appear to be nearly enough if you are still 700 to 800 agents short, if you are, in fact.

Given the workforce requirements within the terrorism program, the continuing threat, and the fact that terrorism is your top priority, why haven't you permanently shifted additional agents to the counterterrorism program? And where are you in this regard?

Mr. MUELLER. Each year I have this discussion, both with our people and with the committee, in terms of where we are going on this. I expected that there would be a greater drop in the number of agents who are working on counterterrorism cases over the years since September 11. There has been a diminishment of the numbers that are assigned to counterterrorism cases, but it still has not closed the gap. At the same time, each year I have asked for additional agents from Congress and through the administration to help close that gap, and I have gotten that. My expectation is that by the end of 2006, if trends continue, we will still have a gap of approximately 400. And I will be looking at how we can close that gap, whether it means additional requests from Congress or another reassignment of agents.

One of the concerns I have about doing it too precipitously is that you can assign agents to a particular squad doing counterterrorism someplace in the country. But what we have found is that terrorism cases that require all our resources will pop up all over the place—Lackawanna, New York; Northern Virginia; Portland, Oregon. Understanding that our first priority is to prevent terrorist attacks and that we have to surge the manpower wherever the investigation is, it has provided some flexibility in terms of where we

surge that manpower in order to address a particular investigation. Each year I will be looking at it. Each year we will be having a discussion, and I would be interested in your views about how you think we ought to best close that gap.

FEDERAL BUREAU OF INVESTIGATION RECRUITMENT

Senator SHELBY. How is your recruiting going on at the FBI?

Mr. MUELLER. Very well. There are a number of people out there who want to be FBI agents. There are a tremendous number of people out there who want to be FBI analysts. I think we had an ad out for 1 week, and we got something like 2,200 applications from persons who want to be FBI analysts. Our recruiting is going very well. We still are recruiting in other areas where we need different language capabilities, for instance, and scientific capabilities. But we are getting a very good response to what we have been doing.

DIRECTOR OF NATIONAL INTELLIGENCE

Senator SHELBY. Director Mueller, Ambassador Negroponte is setting up the Office of the Director of National Intelligence, or DNI. The Intelligence Reform and Terrorism Prevention Act of 2004 gives the DNI more direct authority over the FBI than was previously afforded the Director of Central Intelligence. For example, it is my understanding that the DNI, the Director of National Intelligence, Negroponte, has authority over the individual that you choose to serve as the Executive Assistant Director, or EAD, for Intelligence.

What do you see as the role, sir, of the DNI in overseeing the intelligence functions of the Bureau? Do you have any concerns over the DNI trying to direct FBI operations—you know, if they do—as opposed to focusing on intelligence collection requirements, coordinating community efforts, and setting overall policy? And do you see any potential chain of command problems with the DNI in this authority over the EAD for Intelligence?

Mr. MUELLER. Let me start by saying the President has made it clear that the chain of command in the respective agencies is retained. But going to the DNI, I believe that with regard to the Executive Assistant Director for Intelligence, it is appropriate that any selection put forth by myself and approved by the Attorney General should include the input from the DNI before we put that person in place because that person will be a principal interlocutor with the DNI.

Senator SHELBY. Okay.

Mr. MUELLER. I believe the DNI appropriately should establish the requirements for collection, not just outside the United States but to the extent that it is a national threat nationally and we should be responsive. I believe the DNI should have some role in coordinating activities between the various agencies on particular threats.

I do not perceive that, in working with John Negroponte, we will have any difficulties in sorting out those relationships. We look forward to working with him in order to become much more a part of the intelligence community than we have been in the past.

WMD COMMISSION RECOMMENDATION

Senator SHELBY. Director Mueller, the key recommendation from the President's WMD Commission was to unify the Bureau's intelligence, counterterrorism, and counterintelligence programs under a single Executive for National Security who would report to you and Ambassador Negroponte. Currently, you have separate Executive Assistant Directors for Intelligence and for Counterterrorism Counterintelligence. What are the advantages and disadvantages of the WMD Commission's recommendation? And how do you plan to respond to this recommendation?

Mr. MUELLER. We are in the process with the Attorney General of making recommendations to the President in response to those recommendations that were made by the WMD Commission. In terms of the benefits of doing that, you have one person who is in a position to sort out whatever disagreements or differences of perception there may be between counterintelligence, counterterrorism, and the Intelligence Directorate. It also is in some sense beneficial because we perceive those three entities as being a national security service. We are developing career paths for both intelligence personnel to come up through the Intelligence Directorate, but also career paths for counterintelligence and counterterrorism. And that will help to build that national security service.

The details of how it will be structured within the Bureau and the relationship with the DNI are still under discussion with the Attorney General and with the White House.

Senator SHELBY. Senator Mikulski, I would just note we have a vote on the floor of the Senate.

Senator DORGAN. Mr. Chairman, I have not yet had a chance to ask questions.

Senator SHELBY. I apologize. I know you were in and out. I am sorry.

Senator DORGAN. A vote has just started on the floor, so I apologize, but I——

Senator SHELBY. I went ahead of you. I shouldn't have done that.

Senator DORGAN. No problem. But let me again apologize for being late. I had three subcommittee hearings this morning, but thank you, both of you, for being here.

SEXUAL PREDATORS

Let me ask you, Attorney General Gonzales, about an issue that you have been asked about by several people on the subcommittee this morning, and that is the issue of sexual predators. Martha Stewart was let out of prison and wore an electronic ankle bracelet to go bake bread and do gardening, I guess. Today, there is perhaps a high-risk type 3 sexual predator being let out of prison with not much more than a "So long, see you later." And you and I talked in January about this issue.

My interest was stimulated by the murder of a young woman in Grand Forks, North Dakota, by a sexual predator who had been in prison for 23 years, a high-risk sexual predator, judged to be at high risk for reoffending, let out after 23 years; within 6 months, moved on the Minnesota side of the border, so the registry in North

Dakota would not have identified that person was living nearby; and within 6 months has been arrested for the murder of Dru Sjodin.

When you and I visited in January, I talked about three things in a piece of legislation that I have introduced in the Senate with Arlen Specter, the chairman of the Judiciary Committee:

One, a national registry of sex offenders. I was delighted with what you announced on Friday. Congratulations to you. I think it is exactly the right thing to do. I appreciate your agency and your leadership in doing it. We need a national registry of sex offenders.

The other two provisions in my legislation are, two, before a high-risk sexual predator is let out of prison, the local State's attorney in the jurisdiction where that person was prosecuted should be notified in the event they wish to seek additional civil commitment. In the case of the person arrested for Dru Sjodin's murder, he was judged by the experts to be at high risk for reoffense and a more violent reoffense. I think the local authorities should be notified so that they can seek additional civil commitment where they think appropriate.

And third, and very important, if, in fact, high-risk offenders reach the end of their sentence and are not recommitted civilly and are released, there needs to be monitoring, high-level monitoring for a period of time. As I said, if Martha Stewart wears an ankle bracelet, so, too, should a violent sexual predator who has finished his or her term of incarceration.

So having said all that, first, congratulations to you. I think what you did Friday is wonderful. I am fully supportive of it. Second, can you give me your analysis of the other two provisions of the bill that Senator Specter and I have? One, as I said, is notification of local authorities, and the second is required monitoring upon release of a high-risk predator.

Attorney General GONZALES. Senator, thank you, first of all, and thank you for reminding me about our conversation, the two points. I did ask my staff to go back and look at that specifically. I have not talked with them, but let me just give you sort of my gut reaction—which sometimes can be dangerous. I understand that. But it seems to me that providing notice to local officials seems to make sense. If you have got someone who is especially dangerous, notifying the local officials that you are about to release a very dangerous sexual predator in that community seems to make sense to me.

In terms of monitoring, I don't know what can be done after the fact, after someone has already been sentenced and has served their time and is now being released. Clearly, if we are talking about people that are being tried today as part of the condition of their confinement, it might be possible to include supervision, part of the penalty, like under the PROTECT Act, under which I understand you can get lifetime supervision of dangerous pedophiles. So with respect to people going in, I think there are certainly steps that you can do to provide some kind of monitoring, but in terms of after the fact, I would have to look to see whether or not that is something that could be done. We would obviously be happy to look at that.

Senator DORGAN. Well, I would like—and I am sure speaking for Senator Specter, we would really like to work with you on that to see if, number one, when we pass this legislation—and we will. It was already passed by the Senate last year. I am sure this legislation will be embraced by the Congress. Can we be helpful in the construct of the national registry, anything that we need to do to authorize or to be helpful to you on that? And then, second, we would like to work with you on the other two pieces as we proceed forward, and I appreciate the invitation to do that.

Attorney General GONZALES. Thank you.

Senator DORGAN. The last piece would be an unfunded mandate to the extent that we can do it, but it should not be a massive amount of expenditure by local governments, and it is just a thoughtful thing to do.

USA PATRIOT ACT

Let me make one final point. Director Mueller, you both have talked about the PATRIOT Act because you have been asked questions about it. As you know, there is great controversy about that in some circles, and while I think it has been very helpful in some areas, it also has some provisions that are controversial. It was passed very quickly post-9/11. I don't think those of us in the Congress would believe that we ought to get rid of the PATRIOT Act wholesale at this point. But there may need to be some adjustments in the PATRIOT Act.

Are there any complaints about the PATRIOT Act that you think have some merit? And you no doubt have heard many complaints about the PATRIOT Act. Are they all without merit, or are there some that have some merit and as we begin looking through reauthorization of the PATRIOT Act, what should we look to with respect to valid complaints about it?

Attorney General GONZALES. Well, let me just say that I think it is never inappropriate to express concerns about the exercise of Government authority that might impact or does impact upon civil liberties and the privacy rights of any American. That is a good debate to have, and people ought to be worried about that.

However, as we have considered the allegations of abuses, we have yet to find one verifiable instance when there has been an abuse under the PATRIOT Act. And I think the record reflects that the Department has been very judicious in the way it exercises its authority. I think the record reflects that the Congress did a good job in including within the PATRIOT Act appropriate safeguards to protect the civil liberties and the private rights of Americans.

Senator DORGAN. My question was not so much about abuse. My question was about the authority itself. And there is some controversy about certain areas of authority. But let me submit some questions in writing, and undoubtedly the Congress will proceed in this area, and not, in my judgment——

Senator SHELBY. The record will stay open for these.

Senator DORGAN. Let me just submit that to you. And, again, let me thank both of you for being here.

Senator SHELBY. Senator Mikulski.

Senator MIKULSKI. Mr. Chairman, I note that there is a vote on, and this is the vote that shows our willingness to cross a divide

that was growing in the Senate on judicial nominations. I want to be on the floor. The number of Senators who participated kind of minimizes my time for a second round, but, Mr. Mueller, I hope to be able to continue a conversation with you on a couple of issues. One, you are leading a major transformation of the FBI, and know that we want to be very supportive.

HEALTH CARE FRAUD

I note that there was a scathing article in the New York Times about the FBI and health care fraud and the issue of the FBI mishandling health care fraud cases. I will give you the article. But what it comes down to is that you could not account for the data and what agents were doing what, et cetera. We cannot enter into a conversation about this as I had hoped to, but this then takes me to technology——

Mr. MUELLER. Can I just say, the GAO report takes us to task for not adequately showing that the agents were actually working health care fraud cases. They were. And so it is our ability to account for that that is being——

Senator MIKULSKI. That was going to be my next question, which then takes us to the whole issue of technology and the use of technology, and also the fact that I understand you now have a prime time chief information officer that will be involved in procurement.

Again, my time is up. I have to go to the floor to vote. But I do hope that we can continue the discussion as well as the transformation on counterterrorism. We want to support you. We want you to do what you can do.

Mr. Chairman, thank you for an excellent hearing.

Senator SHELBY. Thank you.

ADDITIONAL COMMITTEE QUESTIONS

First of all, Mr. Attorney General and Director Mueller, we want to thank you for your appearance. We do have a number of additional questions for the record we will send to you. We look forward to working with you. We want to make sure that both of you have the resources that you need here to do your job.

[The following questions were not asked at the hearing, but were submitted to the agencies for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO ALBERTO R. GONZALES

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

IMMIGRATION BACKGROUND CHECKS

Question. What immigration applications require an FBI background check?

Answer. Federal Bureau of Investigation (FBI) Name Checks are provided with respect to six specific applications: Form N–400, Application for Naturalization; Form I–192, Application for Advance Permission to Enter as Nonimmigrant; Form I–485, Application to Register Permanent Residence or Adjust Status; Form I–589, Application for Asylum; Form I–601, Application for Waiver of Grounds of Excludability; and Form I–687, Application for Status as a Temporary Resident Under Section 245A of the Immigration and Nationality Act.

Further details may be available from U.S. Citizenship and Immigration Services (USCIS).

Question. When was the policy that requires these background checks created?

Answer. The FBI began conducting name checks for naturalization applicants after the Immigration and Nationality Act was passed in 1952.

Question. Is there another way to safely review these applications in a more expedited manner?

Answer. It is the FBI's understanding that no other source of information would contain the extensive biographical and historical information found in FBI files (including information concerning violations of law and threats to our national security), which is the product of the FBI's long history of conducting criminal and counterintelligence investigations. The current global situation requires diligence in the screening of applicants for entry into the United States and for citizenship. Without considering all pertinent facts, informed decisions cannot be made regarding the suitability of foreign individuals for immigration or for naturalization as United States citizens.

On average, the FBI's National Name Check Program Section (NNCPS) returns 68 percent of name check requests to the USCIS within 48 hours. An additional 22 percent of these requests are responded to within 30 days, on average. The remainder of the requests require extensive research and processing and often take 120 days or more. Much of this work requires analysts to retrieve and review paper documents, which is a time consuming but necessary step. To improve the performance of the National Name Check Program and reduce the time required to process name check requests, the FBI continues to leverage technology and to identify management actions that will improve efficiency.

Question. Could another agency be equipped with the tools to conduct these background checks?

Answer. The FBI is not aware of another source that could provide the type and depth of information, including historical information, necessary for these checks. The FBI's NNCPS works cooperatively with its customer base and continuously seeks to improve the quality of its customer service through the innovative application of technology and effective resource management.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

VIRTUAL CASE FILE/SENTINEL

Question. What were the two cost estimates provided by Mitretek and Aerospace, and when does the FBI expect to have a final cost estimate? If this information is classified, please make arrangements to provide this information to cleared staff.

Answer. The Federal Bureau of Investigation (FBI) has reconciled the cost estimates from Aerospace and Mitretek and has developed a cost estimate to be used for budgetary purposes. Although this information is not classified, revealing it would alert potential contractors to the government's expectations regarding contract price, and would compromise the ability of the bid process to identify the lowest responsive, responsible bidder. The FBI will provide a final cost estimate when the contractor has been selected.

Question. Based on the two cost estimates you have received so far, how much additional funding or reprogrammed funds will the FBI require? If reprogramming is required, what programs do you anticipate will lose funds?

Answer. On September 27, 2005, the Department of Justice (DOJ) submitted a reprogramming to Congress for Phase 1 of SENTINEL, totaling $97 million. Since SENTINEL will support all investigative activities across the FBI, all programs were reviewed as potential sources to support SENTINEL.

Question. Please reconcile these statements. Will the FBI utilize the interface or any element of the IOC, and on what basis did the Bureau reach this conclusion? Please also indicate whether the FBI has received any assessment from Mitretek of the IOC pilot, and if so, please describe those results.

Answer. The pilot was intended to test case management concepts as well as actual software code developed by the Virtual Case File (VCF) contractor. While the user interface code developed for VCF will not be re-used in SENTINEL, user interface concepts tested in the pilot proved to be essential tools and were incorporated into SENTINEL's requirements document. In addition, portions of the VCF interface code will be used in an on-going project to make data in the existing case management system (the Automated Case Support system) accessible through SENTINEL. This on-going effort will support Phase 1 of SENTINEL.

Mitretek Systems' VCF Initial Operating Capability Final Report, delivered in April 2005, was consistent with the conclusions described above. In addition, its evaluation stressed the importance of waiting to deploy an electronic workflow capability until it can be supported by an electronic records management capability. The notional phases in which SENTINEL will be developed have been structured to reflect this conclusion.

Question. Has the list of requirements been refined and does the FBI now have a final requirements list for the SENTINEL project? If not, when will the FBI have a final list?

Answer. Review of the SENTINEL System Requirements Specification (SRS) by line-of-business owners and stakeholders has been completed and comments from this review have been incorporated into the SRS.

Question. Has a project manager been appointed for SENTINEL, and if so, who is the project manager? If not, when will a project manager be appointed?

Answer. Miodrag Lazarevich was appointed as SENTINEL's Program Manager on 6/13/05. Prior to his detail to the FBI, Mr. Lazarevich served as the Deputy Director for a joint special program office at the Central Intelligence Agency (CIA). During that assignment and numerous assignments in the military, diplomatic, and intelligence communities, Mr. Lazarevich has managed large programs dealing with the development of communications systems, information technology, strategic investment plans for future systems, research and development technology insertion, and cross-agency policy. Mr. Lazarevich is program manager and a Contracting Officer Technical Representative certified at level 3, and has had extensive field experience and executive management training and experience. Mr. Lazarevich is also a former United States Army Signal Corps officer, including both active and reserve duty, and holds a Bachelor of Science degree in Electronic Engineering from the University of Wisconsin at Madison and a Master of Science degree in Electronic Engineering from the University of Arizona at Tucson.

Question. Director Mueller testified on May 24 that the FBI intends to complete the SENTINEL project in 4 phases with phase one to be completed 12 months after the contract award and an overall timeline of 39 to 48 months. In light of the time we have already lost on the Virtual Case File effort, the prospect of 4 more years before agents will have these full capabilities disappoints and concerns me. Please describe what functionalities will be available to FBI agents when each of these phases is complete, and please also provide the estimated completion dates for phases 2 and 3.

Answer. As indicated in the below chart, Phase 1 will establish a single point of entry for legacy case management. The user will be presented with the look and feel of a single integrated system instead of stove-piped applications. Phase 1 will also expand the search capability, allowing searches across multiple case-related systems, and subsuming and expanding Automated Case Support capabilities by summarizing a user's workload on a dashboard, rather than requiring the user to perform a series of queries to obtain it. To simplify the entry of data into the Universal Index (UNI), an entity extraction tool will be used to automatically index appropriate persons, places, and things. Finally, the core infrastructure components will be selected during Phase 1.

Phase 2 will provide case document management and records management repositories, beginning the transition to paperless case records and implementing the electronic records management capability. A workflow tool will support the flow of electronic case documents through their review and approval cycles, and a new security framework will support role-based access controls, single sign on, externally controlled interfaces, and electronic signatures based on Public Key Infrastructure. This phase will address the concern expressed by users of Virtual Case File's Initial Operating Capability that a paperless environment is necessary to leverage the benefits of automated workflow.

Phase 3 will replace and improve the Bureau-wide global index for persons, places, and things. In the "Connect the Dots" paradigm, the "dots" are represented by UNI, the legacy index that is, in effect, a database of entities (i.e., persons, places, and things) that have case relevance. Unlike the current UNI index, which supports a limited number of attributes, the new global index will improve the richness of the attributes associated with the indexed entities, permitting more precise searching.

Phase 4 will implement the new case and task management and reporting capabilities and will begin the systematic consolidation of case management systems. This phase will consolidate and incorporate functions currently performed by stovepipe legacy systems, which will be retired at this point.

The following chart identifies the functionalities that will become available through each phase of SENTINEL's development.

Phase	Description	Functionality Provided
Phase 1	SENTINEL Portal Access to ACS	SENTINEL portal access to legacy data Case Management Workbox Entity extraction for the UNI application Expanded search capability, including Electronic Case File (ECF) and IntelPlus Service Oriented Architecture (SOA) framework and foundation services
Phase 2	ECF Replacement	Case Document Management (DM) Records Management Repository (RM) Workflow management Extended security with role-based access controls, Public Key Infrastructure (PKI), and digital signatures Searching and reporting for DM/RM Adjustments to interfaces
Phase 3	UNI Replacement	Improved Global Index with expanded attributes, including Data Extraction and Extension Project (DEEP) Expanded searching and reporting Adjustments to interfaces
Phase 4	Case Management Consolidation, including Investigative Case Management, Asset Database, Criminal Management Informant System, Financial Institution Fraud, Bank Robbery Statistical Application, Integrated Statistical Reporting and Analysis Application, and Guardian.	Case Management and Reporting Task Management Collected Items Management Adjustments to interfaces

Question. Director Mueller testified on May 24 that "SENTINEL is different from the Virtual Case File program in a number of ways" and referenced a "chart that illustrates the additional capabilities that will be available under SENTINEL, capabilities that were not contemplated as part of Virtual Case File. . ." Please provide a copy of this chart.

Answer. The Request for Proposals (RFP) was not made public, but was instead published only to those contractors eligible to bid under the Government Wide Acquisition Contract. Because the chart comparing VCF capabilities with those we will seek in SENTINEL would convey much the same information as the RFP (though in far broader terms), we cannot provide the chart until the RFP is made public. We will be happy to provide the chart when that occurs.

Question. In response to questions from the Feb. 3, 2005, VCF hearing, Director Mueller stated that the FBI "plans to request additional government software and systems engineers in the future to bolster its resource pool for dealing with complex and critical information technology projects." Do the funds requested in this budget cycle address the FBI's needs for additional software and systems engineers, and how much do you anticipate will be necessary for these purposes?

Answer. The FBI's portion of the President's fiscal year 2006 budget includes $7 million in nonpersonnel funding for "Enterprise Information Technology Management." Of this $7 million, $5.8 million would be used to hire 23 contractors in the Office of the Chief Information Officer, 5 of whom would focus on systems engineering. Future budget requests for additional contractors or full-time FBI software engineers will be based on an assessment of personnel and operational needs related to the evolving technologies that support the FBI's mission.

Question. When do you expect that the FICMS framework will be finalized?

Answer. A draft white paper describing the Federal Investigative Case Management System (FICMS) framework has been forwarded to DOJ for its use in assisting other law enforcement agencies' case management projects.

Question. What will the FBI's role be in the FICMS project?

Answer. FICMS serves as the framework that will guide the development of DOJ and Department of Homeland Security investigative case management systems. The FICMS framework complies with the Federal Enterprise Architecture (FEA), uses FEA reference models, and will contribute to our national security by strengthening the sharing of terrorist information as required by Executive Order 13356. Each agency participating in FICMS has unique needs and will employ its own mechanisms to manage investigative workflow, manage records, and analyze data. These individual systems will, however, follow the FICMS blueprint, permitting data to flow easily and securely between agencies. As the FICMS Executive Agent, the FBI

is moving forward with the development and deployment of the SENTINEL system, which will follow the FICMS framework and establish key architectural components for the FICMS infrastructure.

QUESTIONS SUBMITTED TO ROBERT S. MUELLER, III

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

OKLAHOMA CITY BOMBING

Question. You indicated at the hearing that the FBI failed to find all the evidence when it searched Nichols' home ten years ago because the evidence was buried under the earth. Are you considering any changes to the Bureau's search protocols as a result of this incident?

Answer. The Federal Bureau of Investigation (FBI) used all appropriate investigative techniques when searching Terry Nichols' home in April 1995, and it does not appear that, short of dismantling the residence, the explosives buried under the crawl space could have been located given the technology available at that time. Among other investigative techniques, the FBI used an Ion Mobility Spectrometer (IMS), which is an instrument designed to detect explosives. It is likely the IMS did not detect the presence of explosives, which were later found based upon information provided by Nichols, because these explosives were in their original packaging, then wrapped in paper, then further shrink-wrapped with several layers of plastic, and finally buried beneath rocks and dirt. The 1995 search revealed only normal construction debris and stones left from the construction of the stone foundation, and no anomalies or indicia of recent disturbance were identified.

While the FBI constantly seeks advancements in technology that can aid in our investigative mission, and the capabilities of the FBI's Evidence Response Team have increased significantly in the past decade, the FBI forensic personnel deployed to the site in 1995 were both appropriate for the circumstances and highly qualified. The team of personnel included a Supervisory Special Agent from the FBI's Explosives Unit, a chemist, a latent fingerprint supervisor, and a fingerprint examiner, as well as a team of United States Army Explosive Ordnance Disposal personnel and bomb technicians from the Bureau of Alcohol, Tobacco, and Firearms. This group was highly effective, locating numerous items of incriminating evidence, including weapons, explosives, blasting caps, chemicals, United States currency, and documents. While the forensic tools available to the FBI improve as technology advances, the FBI does not believe that a different search protocol would have yielded a different result.

Question. Is there anything about the recent discovery that changes the Bureau's understanding of who did what in the conspiracy to bomb the Murrah building—and if not, why not?

Answer. The information derived from the recent discovery does not change the FBI's determination of who was responsible for or involved in the conspiracy to bomb the Murrah Building. An extensive and exhaustive investigation determined that the two subjects responsible for the bombing of the Murrah Building were Timothy McVeigh and Terry Nichols. The FBI thoroughly investigated the allegation that Roger Edwin Moore was involved in that bombing, but the investigation yielded no credible evidence supporting the allegation.

SUBCOMMITTEE RECESS

Senator SHELBY. The subcommittee will now stand in recess until Thursday, May 26, at 2 p.m., when we will hear testimony from the Secretary of Commerce on the Department's budget for 2006.

The subcommittee is recessed.

[Whereupon, at 12:12 p.m., Tuesday, May 24, the subcommittee was recessed, to reconvene at 2 p.m., Thursday, May 26.]

COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

THURSDAY, MAY 26, 2005

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:02 p.m., in room S–146, the Capitol, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Gregg, Stevens, Cochran, and Mikulski.

DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

STATEMENT OF HON. CARLOS M. GUTIERREZ, SECRETARY OF COMMERCE

Senator SHELBY. The subcommittee will come to order. I want to welcome the Secretary of Commerce, Secretary Gutierrez, who is here today. This is your first appearance before the newly created Senate Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies. Welcome, Mr. Secretary.

Secretary GUTIERREZ. Thank you.

BUDGET REQUEST

Senator SHELBY. We thank you for joining us for this budget discussion.

We look forward to hearing from you about your vision for the Commerce Department and the challenges that you see as the Secretary in the coming year. Given the tight budget, we seem to always have tight budget constraints that we are facing, this subcommittee will need your assistance big time in making some very tough choices about the distribution of resources as well as your guidance regarding the essential priorities of the Department of Commerce.

The fiscal year 2006 budget request which is before us for the Department of Commerce is $9.4 billion. This includes $3.7 billion for the President's strengthening America's communities initiative, and with the initiative, the Department's total budget increases by $3 billion over last year's funding level. Without the initiative, however, the Department's total budget decreases by $656 million.

While this initiative has laudable goals, I believe there may be some obstacles ahead. The program consolidates 18 Federal eco-

nomic and community development programs from a variety of agencies into a single direct grant program to be housed in the Commerce Department. Legislation has not yet been introduced to authorize the program, and the details of the initiative are still unknown. I hope today you will provide us some information regarding the details that have been lacking about the initiative as well as your plan for moving forward. I think it is important for us as appropriators to know where we are going and how we're going to get there.

The Department's budget also, Mr. Secretary, proposes significant increases for the Census Bureau, the Patent and Trademark Office (PTO), and the Bureau of Industry and Security (BIS). I understand that the increase for the Census Bureau primarily supports the decennial census, and the increase for PTO reflects full access to its fees and will support minimizing application processing time and enhancing the quality of products and services for the patent process and the trademark process. I hope we can discuss these increases.

We would also like to discuss whether the increases proposed for the Bureau of Industry and Security are sufficient to support BIS' critical mission regulating the export of sensitive goods and technologies. Your budget does include some programmatic decreases and this concerns me. Mr. Secretary, the administration proposes to cut funding for the National Oceanic and Atmospheric Administration (NOAA) by 8.5 percent. The cut comes at a time when the Presidentially appointed U.S. Ocean Commission recommended doubling our Federal expenditures on ocean and coastal research, and given the recommendation, the subcommittee finds such a decrease a little puzzling.

Mr. Secretary, following your confirmation, I am sure you were surprised to learn that NOAA makes up 65 percent of your budget. While we appreciate that you must balance many important priorities within the Department of Commerce, you will find on this subcommittee, there is significant interest in NOAA. NOAA produces nautical charts and tide predictions critical to trade and commerce. It manages fish and shellfish for world consumption. It provides weather and climate predictions vital to the agriculture and energy sectors and to commerce as a whole. Mr. Secretary, I hope as you begin to write your first budget request for the Commerce Department, you consider carefully the concerns of this subcommittee regarding the funding for NOAA.

I am pleased that the administration continues to show support in its budget request for the labs of the National Institute of Standards and Technology, better known as NIST, by proposing $426 million, a 12.5 percent increase above last year's appropriation. Your labs play a vital role in the development of measurements, standards and technology to enhance productivity, facilitate trade and improve the quality of life. NIST's standards and measurements contribute to the development of such things as bulletproof vests, mammogram technology, DNA analysis, computer security, nanotechnology, voting machines, and manufacturing.

Unfortunately, the administration proposed to terminate the Advanced Technology Program and reduce the Hollings Manufacturing Extension Program by over 50 percent. I am sure you will

find, Mr. Secretary, that these programs enjoy support on both sides of the aisle here from a number of members. I plan to work with Senator Mikulski to ensure that all of NIST's programs are funded so it can carry out its mission of standards and technology.

In addition, the budget proposes to terminate the public telecommunications facilities, planning, and construction program, grants which provide support for public broadcasting's digital conversion. The proposal assumes these grants can be provided through the Corporation for Public Broadcasting (CPB), even though CPB's assistance has traditionally been a lot more limited. I would like to discuss the impact of the shift of responsibilities that it would have, especially on rural stations in the United States.

Mr. Secretary, I look forward to hearing your thoughts on the Commerce budget request and look forward to working with you in the years ahead.

Senator Mikulski.

Senator MIKULSKI. Thank you very much, Mr. Chairman, and I want to associate myself with the priorities you have outlined here.

I do want to welcome Secretary Gutierrez to the hearing today, his first appearance, and we look forward to ongoing conversation not only in these formal public hearings. Knowing of his distinguished career in business, we know that we can count on him to promote American business both here at home and abroad.

Mr. Secretary, you know you have a tough job. Our trade deficit is at a record high, over $600 billion. Our manufacturing is fading. Where will the new ideas and the new jobs come from? And also, the challenges of protecting our intellectual property as well as moving many ideas into a patent framework so that they can be protected. I am concerned that we could be losing our competitive edge in the global economy.

But here, as we look at your budget, we feel that we could be working for a stronger economy, and we look forward to working with you. As I go through my questions, one of the areas we will be looking at is how will this budget help develop innovation? Because that will be the key to our future, to develop new technologies and new innovations, new ideas that create the new jobs in the future.

Also, I want to know how this year's budget actually focuses on saving lives and saving property. And this takes us to NOAA as well as to NIST. NOAA safeguards and protects property by forecasting the weather, protecting natural disasters, and helping citizens and communities prepare as well as the mapping that it does. NIST, our own National Institute of Standards, as Senator Shelby says, is developing breakthrough ideas on technology.

We do not always think of them as life savers; yet, when I visited NIST, I saw they had a replica and computer models and actual physical renditions of the World Trade Center. And there, just in very modest laboratory circumstances, they were identifying why did that building collapse? Why was there so much smoke? All of the questions that led to such death and destruction. And they wanted to know not only so we could honor what happened but will lead to new ideas and building codes and architectural reform and

better standards and toxic materials in buildings. They are saving lives. They had digital cameras they were testing.

Mr. Chairman, as we spend millions on homeland security and the fire grant program, what are the digital cameras that can really help a first responder go into a room and spot whether it is a mattress on the floor or whether it is a child wrapped in a blanket, and they are doing that, setting those standards. So we are proud of them, and we look forward to what we can do to work with them. We love the Commerce Department in Maryland. It is the headquarters of NOAA. NIST is located there as well as the Census Bureau, and I know as you visited them, you see how dedicated those civil servants are.

So as we look at NOAA, I want to reiterate what our chairman said: make sure that it is adequately funded so that it can save lives and save livelihoods. And also, many of the ideas that they develop, we are seeing that they move into the commercial marketplace. They seem to be developing public-private partnerships, especially in the weather field. So we look forward to hearing your ideas and how you see that while they do the research and do the studies how this goes into the future.

In terms of the innovation economy, I am concerned that the Task Force on the Future of American Innovation is concerned that we are falling behind in innovation. And that is where we look to NIST to research these technologies and in these new fields such as nanotech, through programs like the Advanced Technology Program and the Manufacturing Extension Partnership. I will tell you, they have been a tremendous help in the biotech field right here in the Capital region and have spawned some of these ideas.

But really, what has me on edge is the backlog of patent applications. We have a backlog of almost 500,000 patent applications, and if we invent it, we want to protect it so we can sell it. And we look forward to your ideas on how to deal with the backlog. We know the budget is tight. We have tough choices. But I want to be sure that we work in a partnership with you. I want to keep their ideas here and protect their ideas so that we continue building our market share, so the workers are working in a team and having a budget framework that works as well.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Stevens.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ACTIVITIES AND FUNDING

Senator STEVENS. Mr. Secretary, I welcome you to this hearing today. When we had a shift of control in the Senate, this was my office for awhile. It sort of reminds me of a lot of things, but one of the things it reminds me of is the meetings we had here about NOAA. And we just, your Department recently discovered that the way that the coastline of the United States has been computed is erroneous, and if you include offshore islands and archipelagos and those areas of tidal water up to a point where it is less than—more than 100 foot closure of tidal water, that Alaska's coastline is more—we used to say it was half the coastline of the United States. Now, it is greater than all of the coastline of the United States.

NOAA is to us an enormous entity that covers North Pacific surveys, Gulf Alaska surveys, North Pacific maritime boundary line surveys, the Gulf of Alaska Ecosystem Monitoring, the Southeastern Coastal Observing System, the National Invasive Species Act, and the Marine Debris Removal Program. It is not only important to Alaska's fishing industry, but it is important to the whole country, because we are the home of most of the marine mammals that live off our coasts.

The one thing that bothers me the greatest, though, is the tsunami warning system. After the great tsunami that we witnessed here just in our own lifetime, I went to look at the tsunami warning system in Hawaii. Three of the five warning devices are off of my State. Senator Inouye and I helped them to get there. They have been inoperable for 2 years because of lack of funds. Out of the five, only one was working. Had the tsunami come the other way, the damage to our United States would have been untold, because we would have had no warning, although we thought we were the only Nation in the world that had a warning system.

And now, here comes a level of funding that I just cannot understand. I know you did not do it. You were not there. But someone needs to have their head examined. We exist primarily because of the fish that we consume. Our Nation is turning into a Nation of fish eaters. Sixty percent of all the fish that Americans consume come from off the State of Alaska. All of these NOAA programs are designed to protect those species of the ocean, to assist on debris removal, to insist on no drift nets, to insist on maintaining the concept of limiting fisheries so that they never go beyond the sustainable limit. And NOAA does that all. I really do not understand the NOAA level. It is just impossible for us to understand it.

So I look forward to working with you somehow or other. I think that you will be known as a magician if you can help us solve this problem this year, although I have just come from a meeting where there is good news: they tell us that the deficit this year will be at least $60 billion to $70 billion lower than anticipated. I am sure you have seen the good news. The income of the Treasury is up by 20 percent more than it was predicted. The rate of growth of the country is up. If we can get some of that sunshine shining in this room, maybe we can solve this problem.

Welcome.

Senator SHELBY. Senator Gregg.

Senator GREGG. Thank you, Mr. Chairman.

Mr. Secretary, I want to follow on to what the President pro tempore said regarding NOAA, and I guess I have some specific questions in this area. Last year, the subcommittee funded DOC's policy proposal nowhere near what it needed but at a fairly significant and robust level, Admiral Watkins' proposal of $350 million. And your budget submission basically eliminates that funding.

In addition, we made a strong commitment to NOAA as we always do, and unfortunately, your budget submission does not have the same robust commitment. So I guess my first question to you is what is the administration position on the Ocean Policy Commission's report? It appears to be one of active neglect. I thought maybe you could tell us something else.

Senator SHELBY. We are not in questions yet.

Senator GREGG. We are just doing opening statements. Oh, I apologize. I thought we were in questions.

Senator SHELBY. Just defer.

Senator GREGG. Well, just reserve that question in the back of your mind. I have given you warning.

Senator SHELBY. Maybe you can answer that, Mr. Secretary, when you give your statement.

Senator GREGG. That is my statement.

Senator SHELBY. Thank you.

Senator Cochran.

Senator COCHRAN. As chairman, I could just suggest to the Secretary that you have become Secretary of Commerce at a good time. I noticed the recent economic forecast and reports of the growth in the economy are suggesting that it is way above what expectations were. And we did not expect you would be Secretary of Commerce. So maybe this is the reason why the economy is growing as robustly as it is, and you can discuss that with us, and I would appreciate your observations about what we can foresee maybe more realistically for growth in the future, if it will continue to grow at this rate.

Thank you, Mr. Chairman.

Senator SHELBY. Mr. Secretary, your written statement will be made part of the record. You may proceed as you will.

Secretary GUTIERREZ. Thank you, Mr. Chairman. I have a summary of the statement in front of me.

Senator SHELBY. Okay.

Secretary GUTIERREZ. Mr. Chairman and Senator Mikulski and members of the subcommittee, I am pleased to present the President's fiscal 2006 budget request for the Department of Commerce, and with your permission, I would like to just highlight some of the key components of the budget and submit my written testimony for the record.

Senator SHELBY. Sure.

Secretary GUTIERREZ. As you well know, Congress created the Department of Commerce 100 years ago to promote economic growth and opportunity for business and workers. Our approach to this vital mission is threefold: first, we provide the tools to maximize U.S. business development and competitiveness; second, we foster technology and innovation; and third, enhance environmental understanding and stewardship.

The President's total budget request for the Department of Commerce is $9.4 billion, and it is focused on core programs that promote a prosperous, productive, and secure America. Included in this budget is $3.71 billion for the President's new Strengthening America's Communities Initiative.

Our economy, as you know, is solid, it is strong, and it certainly is stronger than our major trading partners around the world. And as you also know, private forecasters predict that strong economic growth will continue. We know that there are still transitioning communities and workers who need our help. We believe that by consolidating 18 Federal programs within the Department of Commerce, we can simplify the application process, eliminate duplicative programs, and establish greater accountability. Most importantly, we can make better use of taxpayers' dollars and achieve

greater results for low-income people in economically distressed areas.

For the International Trade Administration, we are requesting $396 million to continue aggressively promoting U.S. exports, opening markets, ensuring a level playing field for American companies and workers. Over the last 50 years, the contribution of exports to our economy has more than doubled. It is more than likely that exports will continue to be an increasing share of our growth as we open markets and the economies of our trading partners expand.

Timely and accurate economic information is needed to generate growth and jobs. Therefore, an additional $9 million is requested for the Bureau of Economic Analysis. These funds will support completing a multiyear effort to improve economic measures and expand business investment data.

An increase of $133 million is requested to support initiatives in the Census Bureau, including reengineering the decennial census. Ongoing efforts include administering the American community survey and developing plans for the 2010 census based on only a short form.

For our Bureau of Industry and Security, we are requesting a $9.5 million increase to target export enforcement of advanced technologies. To maximize technology's contribution to economic growth, high-wage job creation and the health and safety of our citizens, we are requesting $532 million for NIST. This includes a 13 percent increase for high priority research in areas such as manufacturing, nanotechnology and public safety programs.

For NOAA, we are requesting $3.6 billion to fund research, prediction, and stewardship programs critical to the Nation's economy and public well-being. This includes funding to begin construction of a fourth fishery survey vessel, to address ecosystem research priorities, and to complete a 2-year plan for providing 100 percent detection capability for a U.S. coastal tsunami. The new system will expand monitoring throughout the Pacific and Caribbean basin and provide warning coverage for regions bordering half of the world's oceans. I would like to thank the members for the funds in the fiscal year 2005 supplemental for our tsunami efforts.

Mr. Chairman, this budget concentrates on our Nation's 21st century economic and security needs. The President has shown strong leadership in laying out a course for cutting the budget deficit in half over the next 5 years, and that requires making hard choices across the entire Federal Government.

We have not requested new funding for the Advanced Technology Program. We believe other R&D programs address higher priority needs of the U.S. science and technology community. We have asked Congress to provide phaseout funding for public telecommunications facilities planning and construction, and we have requested funds for the Manufacturing Extension Partnership (MEP) staff which, when combined with outside resources, will allow Hollings MEPs to maintain a national network. Funding will be targeted to the centers' performance and needs.

I understand that there are those who have differing views about these choices. Please know, needless to say, I respect your views, and I look forward to working with you and other Members of Congress throughout the budget process.

PREPARED STATEMENT

Mr. Chairman, I want to thank you and the subcommittee for the generous support you have provided Commerce programs and missions in the past. I welcome your comments, and I would be pleased to answer any questions that you may have.

[The statement follows:]

PREPARED STATEMENT OF CARLOS GUTIERREZ

Mr. Chairman and Members of the Subcommittee, I am pleased to appear before you today to present the President's budget request for economic, scientific, technological, and environmental programs of the Department of Commerce. Our request of $9.4 billion is an increase of $3.1 billion above the fiscal year 2005 enacted level. This performance-integrated budget, based upon the Department's Strategic Plan, includes a proposal to create a new opportunity to foster domestic economic and community development through the Strengthening America's Communities Grant Program. And, in keeping with Commerce's mission to provide the tools to maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers, the request continues programs that create conditions for economic growth and opportunity for all Americans by promoting innovation, entrepreneurship, competitiveness, and stewardship.

Provide the information and tools to maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers

The President's new initiative, Strengthening America's Communities (SAC), will consolidate and transform 18 Federal economic and community development programs from the Departments of Agriculture, Health and Human Services, Housing and Urban Development, Treasury, and Commerce into a single direct-grant program to be housed within the Department of Commerce. The purpose of this initiative is to create an Administration-wide unified approach to the Federal government's domestic development efforts, rather than one distributing efforts across agencies. The results will better focus resources and eliminate overlapping and conflicting programs.

This consolidated economic and community development grant program will streamline Federal assistance. It will provide States and communities with simplified access to the Federal grant system, focus on communities most in need of assistance, and require communities to meet substantive accountability standards that will track progress toward achieving the community's goals of long-term economic stability and growth. By consolidating those programs that share a similar mission, the Strengthening America's Communities initiative will help provide a more coherent, strategic and results-oriented focus to federal economic development efforts. In addition, by providing incentives and increased accountability, we can reward communities that make concrete economic improvements in distressed areas. The fiscal year 2006 budget requests a total of $3.71 billion for the new Strengthening America's Communities Grant Program. The Administration intends to prepare and present to Congress legislation to implement the initiative as soon as possible.

This past February, I met with European Union officials in Brussels, Belgium, to discuss the Administration's continued commitment to working with other nations to achieve common goals. The strength of the U.S. economy is closely tied to our success in fostering international partnerships and encouraging broad support for the sound fiscal and monetary policies that create jobs at home and produce prosperity around the world.

The Bureau of Economic Analysis (BEA) seeks to strengthen the understanding of the United States economy and its competitive position. BEA accomplishes this task by providing accurate economic accounts data in a timely and cost-effective manner, and by supplying many of the Nation's key economic statistics, including the Gross Domestic Product. To ensure we have sufficient tools to provide our decision-makers with the necessary information, we have included in this request a 12 percent increase for BEA to support key initiatives: to improve international statistics to better describe offshore outsourcing, expand business investment data, and finish a multi-year effort to improve the timeliness, relevance, and accuracy of economic measures.

The Bureau of the Census requests an increase of $133 million to support initiatives that will significantly improve the quality of the information it collects and provides to the country. The most significant increase supports the three key compo-

nents of re-engineering the Decennial Census. First, the American Community Survey, the annual replacement to the once-in a-decade long form, will be fully implemented with funding for group quarters enumeration and a methods panel to update the questionnaire. Second, modernization of the geographic database information remains on schedule. Third, preparation for a short-form only 2010 Decennial Census continues with the 2006 Census Test and development of support systems. Several other notable program changes are supported by this request: improvements to the Automated Export System will produce more accurate trade statistics; expansion of the measurements of services will add detail to this important sector; creation of a Longitudinal Employer/Household Dynamics data base infrastructure will fill critical gaps in local employment data; and strengthening the measurements of migration will improve state-level estimates. In addition, the Bureau of the Census also plans to furnish and move into its new office building at the Suitland Federal Center.

The globalization of trade and the rapid development of technology presents great opportunity and risk to the United States' economic and national security. The Bureau of Industry and Security (BIS) regulates the export of sensitive goods and technologies. The 14 percent budget increase requested will give BIS the necessary tools and personnel to effectively deal with these challenges. The request includes funding for additional licensing personnel to address the rising numbers of licenses, and an Office of Technology Evaluation to ensure that the Department is controlling the appropriate new technologies while not restricting exports of products that are widely available. As license requests have increased so has the need for additional enforcement resources. We are asking for additional enforcement agents, and resources for a seized computer evidence recovery program and additional overseas end-use verification. We are also asking for funding for a program to recruit and retain the high-quality personnel needed for BIS's critical mission.

The International Trade Administration (ITA) is charged with promoting international trade, opening foreign markets to U.S. businesses, and ensuring compliance with trade laws and agreements while supporting U.S. commercial interests at home and abroad. In carrying out its mission, ITA conducts detailed domestic and international competitive analyses to ensure that the U.S. manufacturing and service sectors compete effectively and meet the demands of global supply chains, as well as understand the competitive impact of regulatory and economic changes. ITA supports the U.S. exporting community directly by providing a variety of products and services, and by operating a Trade Information Center to provide a single point of customer contact to government export assistance programs.

The Minority Business Development Agency (MBDA) is focused on accelerating the growth and competitiveness of minority-owned businesses by closing the gap in economic opportunities and capital access. We are requesting an increase of $0.2 million for MBDA to expand the Agency's capabilities to disseminate, analyze and deliver vital statistical data for the minority business community. We are also requesting an increase of $0.5 million for MBDA to provide equal economic opportunities for full participation of Asian American and Pacific Islander businesses in our free market economy, and to increase the access of minority business enterprises to global markets.

Foster science and technological leadership by protecting intellectual property, enhancing technical standards, and advancing measurement science

The President understands the opportunities science and technology provide to enhance the lives of all Americans. The President's focus in the area of science and technology is reflected in the Department of Commerce R&D portfolio. The Commerce budget maintains substantial R&D investments in the Technology Administration (TA), which includes the National Institute of Standards and Technology (NIST) and the National Technical Information Service (NTIS).

The Technology Administration and its various components seek to maximize technology's contribution to economic growth, high-wage job creation, and the social well-being of the United States. TA and NIST not only serve as advocates for technological innovation but also analyze the factors that affect our competitiveness and develop the tools needed to enhance productivity, trade, and, in the end, the quality of life for all Americans. In addition, NIST is engaged in critical research in high-priority areas of technological innovation such as nanotechnology, information technology, biotechnology, and manufacturing technology. NIST is also conducting research in response to the World Trade Center tragedy and the February 2003 nightclub fire in Rhode Island to better prepare facility owners, contractors, architects, engineers, emergency responders, and regulatory authorities to prevent future disasters.

To meet the Nation's needs in setting technological standards, we propose increased funding to NIST laboratories for high priority research areas and necessary facilities upgrades and maintenance. The increases include $39.8 million to enhance research capabilities in manufacturing (particularly in the area of nanotechnology), expand public safety and security programs, and provide the measurement infrastructure for emerging needs of the Nation's research community, and $32 million to support the Facilities Improvement Plan for critical construction, major repair, and renovation projects at the NIST sites in Boulder, Colorado, and Gaithersburg, Maryland. Consistent with the Administration's continuing emphasis on shifting resources to reflect changing needs, the fiscal year 2006 budget proposes to terminate the Advanced Technology Program. We propose to fund the Hollings Manufacturing Extension Partnership Program (HMEP) at $46.8 million. This level of funding, combined with expanding partnerships with other agencies and institutions, will allow the HMEP to maintain a national network.

The U.S. Patent and Trademark Office (USPTO) request will support the USPTO strategic plan for the 21st Century to keep pace with workload growth and to enhance the quality of products and services. The Administration continues to support giving USPTO full access to its fees in the year of collection. This $148.5 million increase will allow the USPTO to improve processing capacity by hiring additional patent and trademark examiners, continue development of an operational system to process patent applications electronically, continue the transition of the trademark operation to a fully electronic environment, enhance the current quality assurance programs by integrating reviews to cover all stages of examination, and work to achieve greater patent examiner productivity by reducing the prior art search burden. I have visited USPTO's new headquarters in Alexandria, Virginia, and appreciate your support for that facility.

The fiscal year 2006 National Telecommunications and Information Administration (NTIA) request will continue to provide the resources necessary to improve NTIA's research and Federal spectrum management capabilities and provide support for NTIA to implement the President's Spectrum Policy Initiative for the 21st Century.

Observe, protect and manage the earth's resources to promote environmental stewardship

The National Oceanic and Atmospheric Administration's (NOAA) mission is to understand and predict changes in the Earth's environment, as well as to conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs. The work performed at NOAA touches the daily lives of every person in the United States and in much of the world, since NOAA: provides weather, water, and climate services; manages and protects marine resources ecosystems; conducts atmospheric, climate, and ecosystems research; promotes efficient and environmentally safe commerce and transportation; and provides emergency response and vital information in support of homeland security.

In addition to using science and technology to create jobs and improve economic prosperity, the Department is also directing resources toward disaster prevention, to better understand and minimize the loss of life and property from disasters.

While in Brussels, I led the U.S. delegation to the Global Earth Observation Summit and presented the Administration's plan for the U.S. component of a Global Earth Observation System of Systems (GEOSS). A large portion of the increase requested for NOAA in fiscal year 2006 will support the effort to better understand the complex interactions on our planet. With this improved knowledge, decisionmakers around the world will be able to make more informed decisions regarding climate, the environment, and other issues.

I applaud the Congress for passing the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005, which embraced the President's desire to protect the American people by providing the initial resources necessary to meet the need for 100 percent detection capability for a U.S. coastal tsunami. To continue this effort in fiscal year 2006, we propose to invest $9.5 million to expand the U.S. tsunami warning system. Once fully implemented by mid-2007, the new system will extend monitoring capabilities throughout the Pacific and Caribbean basins and provide tsunami warning coverage for regions bordering half of the world's oceans.

Currently, NOAA leads the Nation and world in ocean and ecosystem science, policy and management. In December 2004, the Administration released the "U.S. Ocean Action Plan," a response to the U.S. Commission on Ocean Policy's report entitled, "An Ocean Blueprint for the 21st Century." Working under the leadership of the Council on Environmental Quality, and with several other agencies, NOAA substantially assisted in the development of this action plan. NOAA will play a key role

in implementing many of the ocean policy measures that the plan contains, including supporting the establishment of a coordinated ocean governance structure. Consistent with this approach, the Administration continues to support Commerce's leadership role in oceans policy and activities by promoting passage of a NOAA Organic Act. An Administration drafted Organic Act was sent to Congress on April 5th and is awaiting introduction.

In accordance with the President's U.S. Ocean Action Plan, the Department continues to request significant resources for ocean and coastal programs and improved fisheries management, as well as protected species activities. The President's Budget includes more than $1 billion for these ongoing programs, including $61.2 million to address state and regional ecosystem research priorities at the National Sea Grant College Program, $22.7 million in support of NOAA's Ocean Exploration Program, $32.5 million to begin construction of a fourth fisheries survey vessel that will substantially improve the quality of NOAA fisheries research, and $25.4 million for fisheries stock assessment. The Budget proposes reforms to the Pacific Coastal Salmon Recovery Fund to help ensure that funds are allocated to high priority activities, and to require matching contributions from State and local recipients of grants.

NOAA's global leadership also extends to monitoring the planet through the development of the GEOSS. The GEOSS will provide NOAA and others with the tools to better understand our planet through an integrated, comprehensive, and sustained Earth observation program. We are requesting a significant increase for GEOSS of $94.7 million, which includes the development of the next generation of weather satellites.

In addition, the Administration is committed to continuing the LANDSAT mission. Our budget requests $11 million to begin the process of integrating LANDSAT sensors on future weather satellites. NOAA's satellite programs secure the observational data necessary for more timely and accurate weather forecasts, hurricane predictions, and the development of climate predictive models.

NOAA leads the Administration's interagency Climate Change Science Program. As needs for water, climate, and air quality information increase worldwide, NOAA has been working to improve our understanding of climate and helping develop products and services that provide useful information for national and regional management decisions. One example of this is the National Integrated Drought Information System (NIDIS), which provides early drought warning on a regional level.

Finally, the budget includes investments for improvements in transportation. Additional funding for electronic navigational charts and for accurate current and water level data is essential to safe and environmentally sound shipping. Improving aviation ceiling/visibility forecasting will result in an estimated $250 million annual fuel cost savings for U.S. airlines.

Achieve organizational and management excellence

The Department's headquarters building, the Herbert C. Hoover Building (HCHB), is in critical need of major renovation and modernization. The 70 year-old HCHB is one of the last historic buildings in the Federal Triangle to be scheduled for renovation and modernization. To meet basic health and safety codes, meet industry standards, and replace failing mechanical, electrical, and plumbing systems, the Department is requesting $30 million for its fiscal year 2006 portion of the joint General Services Administration/Department of Commerce project. The request also includes funding of the Department's renovation office that will coordinate the movement of tenants and GSA's work to minimize the disruption of the Department's missions and provide necessary oversight of the project.

Both the Office of the Inspector General and Departmental Management are requesting funding increases to improve acquisition oversight, provide additional training to contract officers and make targeted reviews of both specific contracts and the procurement process. A quarter of Commerce's appropriation is spent on major procurement activities, such as satellites, the Decennial Census and the renovation of HCHB. Improving the acquisition process is one of the Department's top management challenges because, with proper oversight and improvements, taxpayer money can be better utilized.

Conclusion

In his February 2nd State of the Union Address, the President underscored the need to restrain spending in order to sustain our economic prosperity. As part of this restraint, it is important that total discretionary and non-security spending be held to levels proposed in the fiscal year 2006 President's budget. The fiscal year 2006 President's budget includes more than 150 reductions, reforms, and terminations in non-defense discretionary programs, of which six affect Department of

Commerce programs. To meet this fiscal requirement we are proposing terminating the Advanced Technology Program, the Emergency Steel Guarantee Loan Program, and the Public Telecommunications, Facilities, Planning, and Construction Program. In addition, we are proposing a major reduction from fiscal year 2005 enacted levels in the Hollings Manufacturing Extension Partnership Program. The budget also contains the reform proposals for the Strengthening America's Communities Grant Program and the Pacific Coastal Salmon Recovery Fund discussed above. The Department wants to work with the Congress to achieve these savings and reforms.

The Department of Commerce's fiscal year 2006 budget has been crafted to focus on funding the core functions that the American people rely on from this Department, in the most efficient manner. I look forward to working with the Committee to ensure that together we are providing the best services to the American people—promoting "American Jobs and American Values."

STRENGTHENING AMERICA'S COMMUNITIES INITIATIVE

Senator SHELBY. Thank you.

Mr. Secretary, when do you plan to present legislation authorizing strengthening America's communities?

Secretary GUTIERREZ. Mr. Chairman, we have an advisory committee and we expect to have legislation to you later in the year. That legislation will have a recommendation on how we allocate funds in the future. We have a funding system that has two formulas, and depending which formula you use, you can find money for just about any community. We have communities today at a 2 or 3 percent poverty level who are receiving funds and some communities that have a 20 percent poverty level that are not receiving enough funds. So the challenge for the advisory committee will be how to develop funding criteria that will ensure that the money goes to those communities that really need the money. So we look forward to working with you, and we will have that recommendation to you in late June.

Senator SHELBY. What impact, if any, would this have, if this came about, on the Economic Development Administration (EDA)?

Secretary GUTIERREZ. This would expand what we currently do. Essentially, we have EDA today, and we have moved to strengthening America's communities. We would collapse the six different agencies throughout the Government into one program, because you have 18 different programs today. And we think that by having one program with one criteria and one process, we would make it easier for those who request funds.

We make the criteria transparent for everyone. We ensure that there are accountability measures in the communities; that the money we give out either improves employment or improves private sector investment or improves poverty rates; we would like to tie it to measures and results, and that is what we look forward to doing.

Senator SHELBY. Some of us would like that to come under Commerce, under this subcommittee, but what are your realistic prospects on authorizing and passing that legislation?

Secretary GUTIERREZ. Well, Senator, we do believe that if we get the information out we can ensure that there is understanding about the logic for this and why we are doing this. The fact that in the Commerce Department, we have contacts with the private sector; we believe that community development is very much about attracting private sector investment. We already do that. A lot of what we do is in the private sector, so we have that skill set within

Commerce, and we hope that the logic of this will be seen broadly, because we do believe that it will be better use of taxpayers dollars.

EXPORT ADMINISTRATION ACT

Senator SHELBY. Mr. Secretary, the Congress has not reauthorized the Export Administration Act. We continue to confront cases of individuals and companies either deliberately or inadvertently seeking to military sensitive dual use technologies without regard for the licensing process. Do you believe that a $9.5 million increase over last year's funding level is sufficient to address this?

Secretary GUTIERREZ. I know we are working very hard on this. We have actually added some resources outside of the country to be able to make some checks on dual use items and actually go to the buyers and make sure that they are using items for what they said they would use them. We have got very good contacts with the intelligence community, and we believe that we maximize the use of that. We are always trying to make the greatest use of a limited budget.

REORGANIZATION OF INTERNATIONAL TRADE ADMINISTRATION

Senator SHELBY. Last year, you know, there was a large scale reorganization of the International Trade Administration. What results are you seeing? Have you been able to measure that from that reorganization?

Secretary GUTIERREZ. We have been able to concentrate and focus on specific regions of the world. So for me, it is very helpful to be able to have a European expert who is involved primarily in Europe and who understands the issues in Europe and who understands regulations in Europe. We have some very competent Asian experts. We have North American experts. So that level of expertise has been very, very helpful.

We also have individuals who have been involved in industry who have expertise in the steel industry or the textile industry. Having that focus and expertise has helped me, and I know it helps the Department have a sense of focus and results.

Senator SHELBY. Will this include the trade promotion mission?

Secretary GUTIERREZ. Yes, sir, yes. We have done missions and we are planning missions now. We think that an important part of our role is ensuring that our exporters have access to markets where we have free trade agreements. We have had export missions in the past. We are planning one now to eastern Europe. We would like to get more missions going, and I would love to hear from you, sir, for any areas of the world that you think merit missions. An important part of our role is making sure that our businesses know how to access foreign markets.

CHINA AS A MARKET ECONOMY

Senator SHELBY. Many people believe that once, or I should say if or when, if ever, China floats its currency and engages in other economic reforms, there is a probability that your Department will declare China to be a market economy looking down the road. If that were to happen, the subsidies that are being given today while China is a nonmarket economy, will that be actionable?

Secretary GUTIERREZ. For China, one of their big priorities is to become a market economy.

Senator SHELBY. Sure.

Secretary GUTIERREZ. That is one of their agenda items that I know they will be taking to our Joint Commission on Commerce and Trade (JCCT). We have a series of other agenda items that we would like to see them address first. Intellectual Property Rights (IPR) is one that is right on top of the list; Government procurement is also on the list. We know that a lot of the software we sell, we cannot sell to the Government. A lot of the software they have is counterfeit. So it is very important for them, and it is a big symbol to them to be named a market economy. We would like to see some things happen before that takes place.

Senator SHELBY. Senator Mikulski.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY FUNDING

Senator MIKULSKI. Thank you very much, Mr. Chairman.

Mr. Secretary, I would like to discuss the National Institute of Standards. I was very troubled by the fact that it was decreased by 24 percent and is over close to $500 million. For NIST, which is not a big chunk but a big bang agency, that is a pretty big hit. Would you tell us how you think they can provide the same level of service with the reduction, and why did we eliminate the Advanced Technology Program just when we need to be moving toward cutting edge technology for high value jobs?

Secretary GUTIERREZ. I was over at NIST not long ago, and their challenge, of course, is to focus on their pipeline of ideas and to get them done. As you know, some of those ideas are several years down the road. Quite often, by having too many projects, they can lose effectiveness. We believe that we have that balance of the number of projects and make sure that people are focused on those areas that only we can do. We do not believe that the private sector is involved in nanotechnology to the degree necessary, because they do not have a return in nanotechnology yet. But we have nanotechnology and we have biotechnology. Some of the other areas that require R&D spending are being focused on by the private sector. It's a matter of finding a balance between what we should do, what we can do, and what we can fund.

Senator MIKULSKI. Well, Mr. Secretary, I respectfully disagree with you. The Task Force on American Innovation says that inventors in Asia are applying for patents at a faster rates than inventors in America. Asian nations are increasing their share of high tech exports while the United States is falling. So we have got to be competitive.

And then, I agree with your focus. So I respect your managerial ability and the management effort and focus. But you cannot, even with focus, you still need money. Focus without funds is unfocused. And to cut the Advanced Technology Program, which is a $140 million decrease, I think is really stunning. And I would like, as we go through our appropriations, for you to read this, and, you know, sure, we could meet with the lab, but you are the Secretary of Commerce.

We want to work with you because we believe that this is a very, very, very important program in terms of them being the link

there. And as you said, our private sector knows about nano, and they are already working in nano. But then, they are going to need standards: what is the smart dust? Are there unintended occupational hazards, because of the small particles? So we want to keep on doing it.

And then, my colleagues are going to ask questions about the ocean policy. They are going to ask about the tsunami. Senator Stevens is here. I want to ask about NOAA about the reduced funding of research there. NOAA research is reduced by $40 million. And I know we, we are coastal Senators here, and seafood is our life's blood, whether it is our oysters and crabs where we have been doing research. We understand New England has a lobster disease. We are working on those issues.

Senator GREGG. New Hampshire is a coastal State.

Senator SHELBY. An important part.

OCEANS POLICY REPORT RECOMMENDATIONS

Senator MIKULSKI. As you can see, we enjoy each other.

But what do you think are the consequences of reducing NOAA funding for research by $40 million? What are we not going to do?

Secretary GUTIERREZ. As you know, Senator, we received 200 recommendations on the Oceans Policy Report. It is hard to tackle 200 recommendations at once. The President does not really disagree with them, but we picked 50. We have $23 million in the request to make sure that we have 100 percent tsunami protection and coverage. We have $32 million for a new fisheries vessel. The big projects, the projects that we believe have to be done are funded. And once again, it is a matter of choices and priorities, and we hope we have chosen the right priorities. But you will note that there is about $1 billion to respond to the Oceans Policy Report.

Senator MIKULSKI. No, there is $40 million less in research.

Secretary GUTIERREZ. Yes.

Senator MIKULSKI. In addition to the broad ocean policy for NOAA and research you know, again, there is often the specific research. So we are concerned again. I do not know if there is a strategic plan for the implementation of the ocean report? What, then, are the strategic priorities? In some ways, the way the National Science Foundation goes about it.

PATENT BACKLOGS

But my time, I know other Senators would like to ask questions. Let me go to an important thing with me. That is the patent backlogs. As I understand it, there is a backlog of 500,000 applicants. You and I have talked about intellectual property, and I think we share an interest in it. But you cannot protect intellectual property unless you have patents.

Could you tell us what is the plan to cope with the backlog, and why is the PTO funded through fees paid by inventors? Should we be able to be looking at other revenue streams? Is it the lack of money? Is it the lack of management? Is it the lack of technology at the Patent Office? Because this is probably one of the most important tech transfer agencies. And I will stop there.

But my own State, where biotech is on the rise, my entrepreneurs say we stand in two lines: one to get an FDA approval,

and that is pretty rigorous. Then, we are standing in another line to get our patents, and we feel incredibly disadvantaged. You cannot accelerate a clinical trial. You have to be careful. The patent process is something that we should be able to help them with.

Secretary GUTIERREZ. Senator, I agree with you. I feel very uncomfortable with the lead times. I feel very uncomfortable with 500,000 patents pending in 5 years. The time for pendency is about 18 months. It is my understanding that there are some projects that have been around for even longer than that.

There are two areas in the budget to address that, and we will report back whether it is speeding up and whether it is making progress. One is adding people.

Senator MIKULSKI. Adding people?

Secretary GUTIERREZ. Adding people. There are quite a few new reviewers in the budget who actually review the patents and make sure they get through the system quickly. There are over 600 new positions. I am usually skeptical about just adding people to a problem.

Senator MIKULSKI. Yes.

Secretary GUTIERREZ. But I do think in this case, they do need more people; and then, automating more of what we do at the agency. We can use technology to be more efficient. So those two things have been budgeted. They are in the plan.

In terms of a management challenge, that is probably our biggest one. The part I cannot tell you is how well is the agency managed. Do we have the process? Do we have measurements? Do people know what they are supposed to do? Because I agree, our innovators depend on us to help them get through the system, and I am not sure that we are doing that.

Senator MIKULSKI. Well, this is an area where we will work with you in very intense partnership. I know the chairman of the full committee is here. I am going to hold my questions.

ECONOMIC OUTLOOK

Senator SHELBY. Senator Cochran, the Chairman.

Senator COCHRAN. Mr. Chairman, thank you very much.

Mr. Secretary, welcome to the subcommittee. I am very glad to have an opportunity to be here when you present the budget request for your Department to the Appropriations Committee. In addition to gathering information about the health and vitality of the economy, which I mentioned in my opening remarks and congratulated you on the role that you have had in promoting growth in the economy, it is exciting to see the United States growing certainly in comparison with our major trading partners, as you pointed out.

I wonder what your outlook is now, if you can tell us. Do we have the strength, the underlying strength in the economy? Is the structure the right structure to help provide opportunities for businesses in America to continue to prosper and grow in the years ahead? What is your outlook for our potential in the near term?

Secretary GUTIERREZ. I think it is important to recognize that we are at a time today where we have unprecedented prosperity in the country, and it is often hard to conclude that based on how the economy is editorialized.

Our growth was just raised today, the outlook for gross domestic product (GDP) for the first quarter to 3.5 percent. The first number was 3.1 percent. That comes off 4.4 percent last year. Our unemployment is down to 5.2 percent. The President always says we are not satisfied. We are not complacent. 5.2 percent is below the average of the past three decades.

In spite of energy prices, our inflation remains at about 3.1 percent. So that says a lot about the strength of our infrastructure. We have been able to offset that increase in energy prices. And in homeownership, more Americans own a home today than at any point in our history. I think about what is prosperity. People owning their home is a great indicator of prosperity.

Mortgages as a percent of income are actually declining. So people can afford the houses they are buying, which I think is also a great indicator. Now, the challenge is, we have got this prosperity, how do we keep it going?

I believe that we have seen that the President's strategy and his approach to the economy is working. Keep taxes low. We want to make the tax cut permanent. Get unnecessary regulations out of the way. We do not want businesspeople worried about getting sued; we want businesspeople to worry about creating jobs. Tort reform is a major step forward. There is more regulation to address whether it be asbestos, whether it be medical malpractice, but that is part of the agenda. And also a long-term energy plan so we can work strategically on energy long term and not just be reacting to short-term changes in prices.

Health care; and then, very importantly, opening up markets around the world so that we can continue to export market by market. That is one of the reasons why CAFTA is so important. We are paying tariffs going into Central America, while most of their products are not paying tariffs coming into our country. This levels the playing field, and it is good for small manufacturers, for farming, for services. It is just one more example of staying on plan. I think we have to stay on plan. It worries me that we do not recognize sometimes, how good we have it today, how fragile it is and how quickly we can lose it if we do not stay on course.

TRADE ASSISTANCE FOR NEW AND SMALL COMPANIES

Senator COCHRAN. One of the services that I am familiar with the Department of Commerce provides to emerging owners of business, those who are trying to learn how to more effectively compete either in exporting goods and services or doing business with the Federal Government as a way to assure success of small and new businesses. In my State, for example, there are a lot of young people, like in any other State, I suppose, but getting started in business for the first time. The Department of Commerce once had a program—I can remember Elliot Richardson coming to Mississippi at my request when I was a Member of the House of Representatives and had a public forum on how to do business with the Federal Government, and it was specifically designed for small business owners, men and women who may not have had the experience that others in business had had and were just getting started.

But the United States is the largest dollar volume purchaser of goods and services in America. So it is a fantastic opportunity if

someone understands how to go about getting started. Is there an office now in the Department of Commerce that has the responsibility of making available information like this in States throughout the country? If there is, do you know whether or not you have enough money in the budget to see that it is sustained and maybe even expanded?

Secretary GUTIERREZ. Yes, sir. We have a minority business development agency in Commerce which works very closely with small business, and then, there is the Small Business Administration, which now works out of the White House. We work very closely together.

And you are right, what drives growth over time is small business. People think it is the big corporations such as IBM and Kellogg, but it is really the small entrepreneur that creates the jobs and comes out with the ideas. Microsoft was a small business 30 years ago.

Your point on the Federal Government being a customer is a great point. If that is how they can get started, our standards are high. If they can meet our standards, most likely, they can go out and sell to consumers as well. So I will take that with me.

Senator COCHRAN. Thank you.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Gregg.

Senator GREGG. Thank you. Thank you, Mr. Chairman.

I know a lot—I apologize for having to leave. The only people who have this number are my children, and when my son calls who is at college, it is a rare event.

OCEAN COMMISSION RECOMMENDATION

So I know you addressed the ocean policy issue, and I was interested in your point that you have taken 50 of the items and picked them out and that you put $32 million, I think, into those items. But the budget proposal, as I read it, basically, $350 million Congress put in last year was gone, and that was sort of a starting. That was a number to try to build the emphasis. So I guess my question is how does this administration see the Ocean Commission's recommendations? What does it see as the priority, the top priorities of that Commission, and how is it going to promote those items?

Secretary GUTIERREZ. I came in right after the report was issued. I believe it was in December. And I remember going around preparing for my confirmation hearing, and that was a big topic of discussion. We just received this report, which was very important, taken very seriously. There were 200 recommendations, and the challenge was which ones do we start with, and how do we get started?

And my understanding is that 50 were chosen. I think there is very clear alignment between the administration and the report. We want clear skies. We want clear oceans. We want our fisheries to be sound, to be healthy. I do not think that there is a philosophical difference at all. I will give you some examples of the big ticket items that were funded in our budget. There was $61 million for a sea grant program, which we believe is important, and that allows us to allocate the funds in the areas where we believe they

will make a difference; $32 million for a fourth fishery survey vessel; $23 million for ocean exploration.

We have funded additional buoys, and Senator Stevens mentioned that four out of five were not working. I remember that during my last hearing. They are all working today. I checked that before I came here.

We want full tsunami detection capabilities for the Pacific and the Caribbean by 2007, 100 percent. That requires, I believe it is 32 new detection devices. There are big things budgeted; not everything, but again, I think we can make a lot of progress by focusing on some things, getting them done, getting them done right and then moving on to the next listed priority.

Senator GREGG. Well, that is obviously true. We cannot do everything. We could not last year either. But a lot of what you mentioned there is core NOAA activities versus the ocean policy initiative.

Secretary GUTIERREZ. Right.

Senator GREGG. And of course, the budget that came up is significantly below what NOAA was funded at last year by about $400 million, I think. So even core activities are going to have some pressure on them. But let us take a specific idea. You asked specifics. You maybe are not up to speed on it on the CELP program, which is the coastal estuary protection.

Senator MIKULSKI. What?

Senator GREGG. CELCP. It is called CELCP. It is where you protect coastal estuary marine areas. And there are a lot of them in Maryland.

Senator MIKULSKI. Yes.

Senator GREGG. Are you familiar with that? You can get back to me.

Secretary GUTIERREZ. I would love to get back to you on that.

[The information follows:]

COASTAL AND ESTUARINE LAND CONSERVATION PROGRAM

What is the Coastal and Estuarine Land Conservation Program?

The Coastal and Estuarine Land Conservation Program (CELCP) has been established to help protect estuaries and coastal lands that are important to our nation's environment, economy and communities. The program provides coastal states with funding for projects that ensure conservation of these areas for the benefit of future generations. CELCP was created by the Fiscal Year 2002 Appropriations Act for the Departments of Commerce, Justice and State (Public Law 107–77) and codified at 16 USC 1456d.

Who is eligible for funding through the CELCP?

Coastal states that have a federally approved Coastal Zone Management Plan or National Estuarine Research Reserve are eligible to participate in the program. A state is eligible to submit projects for competitive funding at the national level once it has developed and received approval of a Coastal and Estuarine Land Conservation Plan. The state must be able to match CELCP funds, 1 to 1, from other funding sources.

What projects will CELCP fund?

CELCP funds are intended to complement current federal, state and local coastal and estuarine conservation plans. To be considered, the project should address the following:

—Protect important coastal and estuarine areas that have significant conservation, recreation, ecological, historical or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses;

—Give priority to lands that can be effectively managed and protected and that have significant ecological value;
—Advance the goals, objectives or implementation of federal, regional, state or local coastal management plans.

What kind of funding is available?

NOAA has received Congressionally directed funded for this program since fiscal year 2002.

[In thousands of dollars]

	Amount
Fiscal year:	
2002	15,825
2003	37,422
2004	50,558
2005	41,697
2006 Req	.....

STATUS OF NATIONAL INTELLECTUAL PROPERTY LAW ENFORCEMENT COORDINATION COUNCIL AND STRATEGY TARGETING ORGANIZED PIRACY INITIATIVES

Senator GREGG. Let me say I do support you on your ATP proposal. As chairman of this subcommittee, for years, I was trying to do exactly what you suggested, and I hope the present chairman is more successful than I was. There is another acronym called NIPLECC (National Intellectual Property Law Enforcement Coordination Council), which last year, we stood up with some money, tried to get all of these different groups coordinated on protection of international intellectual property rights, because we found that there were a whole lot of agencies which were supposed to be communicating with each other and using NIPLECC as its coordinating effort but were not.

And the initiatives were falling, you know, the protection of intellectual property is falling through the cracks because so many different people are trying to do it, but nobody is doing it. What sort of coordinating effort is being pursued there, specifically with the initiative that I think we put $35 million into last year?

Secretary GUTIERREZ. We have NIPLECC in place, and we have just received authorization for an intellectual property coordinator who will oversee the activities of NIPLECC and making sure that those activities are coordinated with other agencies. As you know, NIPLECC could be having some great sessions and discussions, but if they are not coordinated with, say, the Justice Department or the Homeland Security——

Senator GREGG. Well, that is the whole purpose of NIPLECC.

Secretary GUTIERREZ. Right, and that is what this person is going to ensure happens.

We have the Strategy Targeting Organized Piracy (STOP) program, and we are taking that to the next level. STOP has done some great things, making sure that we have a website so people can communicate and a hotline so that people can call in with intellectual property rights violations.

The challenge is then doing something about all of those violations, and that requires, a lot of coordination across the agencies. We are in the process of putting together what that next step is. And we thought about a very simple framework. How do we make

people more aware that we have a problem? And people not just here but consumers.

How do we make sure that our partners have the right laws? How do we make sure that they are enforcing those laws? And then, very importantly, and this goes back to the Patent Office question, is how do we ensure that we are the role models for the rest of the world? Because I think it is important that we can point to our intellectual property standards in the United States and say that is how we do it, and that is how we expect you to do it.

I would love to come back and present to this subcommittee what it is we plan to do in those four areas. To answer your question more specifically, as opposed to just telling you this is an important priority for me. We are going to make sure that NIPLECC works and that it does what it is intended to do and that this coordinator does a great job. I would love to share with you the plan and get your input as to what else we should be doing. I can assure you this is a top priority.

Senator GREGG. That is good news. I would be glad to help in any way that I can.

Secretary GUTIERREZ. Thank you.

STANDARDS AND INTERNATIONAL TRADE

Senator SHELBY. Mr. Secretary, I guess along those lines, standards and international trade: the U.S. manufacturers, suppliers, and testing labs are concerned about the new requirements of the European Union directive on the restriction use of certain hazardous substances with electrical and electronic equipment.

This directive would restrict the amount of certain hazardous substances used in electrical and electronic equipment such as household appliances, telecommunications equipment, lighting, electrical tools, toys, and sports equipment. A product must meet these restrictions in order to be sold in the European Union.

The problem is that the directive is vague, and no standard has been agreed upon to determine the amount of hazardous substance, if any, is in these products. Enforcement, I think, is supposed to begin July 1, 2006, a little over 1 year from now. Where are you on this? What steps is the Department of Commerce taking to assist our manufacturers and suppliers in complying with this European Union directive? Where are we going? Will that result in a barrier to trade? We have to watch what people do.

Secretary GUTIERREZ. Yes; that is a great point, and this is actually quite recent.

Senator SHELBY. It is important, is it not?

Secretary GUTIERREZ. It is very important. And this comes on top of another program, which is registration of every single chemical used in every single product. It is more regulation in an area where we had heard they want to reduce regulation. The first step is to meet with our European trading partners and our people and ensure that we understand what it is they are trying to get at.

But this worries us, because this is just one more example of more and more regulation that impedes trade, that has unnecessary steps for businesses, that is not clear, and that can become a trade barrier.

Senator SHELBY. It could be a huge trade barrier.

Secretary GUTIERREZ. Absolutely.

Senator SHELBY. We are going to be on top of that.

Secretary GUTIERREZ. We are very worried, and we will report back.

Senator SHELBY. Interoperability, you know, it is all part of the—some manufacturers say their radios meet the public safety standards for interoperability, but they do not. There is no procedure to verify that this standard is being met is my understanding. We are aware that NIST has conducted some testing on these radios, and not one of the radios tested met the standard. It is alarming. It is widely known that one of the fatal flaws in our response to the 9/11 attacks was our inability to communicate across different radio systems.

Now, we are spending a lot of money to outfit first responders with supposedly interoperable radios; yet, these radios fail to meet the interoperability standards. In the 2005 appropriation, the subcommittee directed NIST's Office of Law Enforcement Standards working with the National Institute of Justice Communication Tech Program and the Department of Homeland Security Safecom program to issue interim standards that can be used to specify the required functionality and testing validation for emergency radio systems.

Where does the process stand at the Department of Commerce, and what are the expected time lines and milestones for the issuance of intercommunications standards? This is a big deal.

Senator MIKULSKI. A very big deal.

Secretary GUTIERREZ. Yes, I agree with that. This falls under the National Telecommunications and Information Administration, and the balance here, is to have interoperability without overregulating. I would love to get back to you on that.

[The information follows:]

INTEROPERABLE COMMUNICATIONS

The Department of Commerce, through the National Institute of Standards and Technology (NIST) and the National Telecommunications and Information Administration (NTIA), supports Project 25 (P25), which is a set of standards for interoperable communications equipment used by first responders. The steering committee for P25 is governed by the Telecommunications Industry Association (TIA), which comprises 1,000 member companies.

The following table gives the status of the four P25 interface standards that are key for interoperable communications.

Standard	Status
Common Area Interface	Complete.
Inter-RF-Sub-System Interface	Completion expected first quarter 2006.
Console Interface	Completion expected first quarter 2006.
Fixed Station Interface	Completion expected first quarter 2006 (interim form).

To accelerate the completion of the standards, NIST and its federal sponsors at DHS and DOJ are providing additional engineering support to the corresponding technical committees. The second and third standards will be completed on the following timeline, pending approval by the steering committee and the absence of major technical issues.

October 2005—Vote by P25 steering committee.

December 2005—Testing and validation of the standard completed.

December 2006—First products based on the new standard on the market.

The Fixed Station Interface standard will follow the same timeline, but as an interim standard for federal grants and procurement contracts until a final standard is published.

As noted by the Appropriations Committee, there is no formal process for ensuring that products sold as P25 compliant indeed meet the P25 standards. Recent testing by NTIA showed that none of the P25 subscriber units (walkie-talkies) met all of the requirements of the Common Air Interface standard.

Therefore, NIST and NTIA are developing a third-party conformity assessment program that will allow accredited private laboratories to test equipment for P25 compliance. It is expected that DHS will require the use of this program when dispersing federal grants to local and state public safety agencies. In addition, the program can be used by Federal agencies when procuring land mobile equipment for their own use. By January 2006, NIST expects to have all documentation to begin the laboratory accreditation process for the P25 Common Air Interface, and hopes to have products tested in accredited labs by the summer of 2006.

Senator SHELBY. Okay; you can get back to us on that. We have several entities under our subcommittee that are focused on this problem. We have the Bureau. Senator Mikulski is on the Intel Committee, dealing with all of the intelligence agencies. I spent 8 years on this issue. But you are going to be on top of that.

Secretary GUTIERREZ. Yes, sir.

U.S. TRADE

Senator SHELBY. You know the WTO Doha Round talks are accelerating. They are moving along. But I have been told that virtually all of the proposals that have been made to date would weaken U.S. trade laws with regard to trade law remedies, in other words, where we have remedies, and the United States has only made several small proposals.

Some of us are concerned that the United States does not have aggressive proposals on the table in these negotiations to strengthen trade law rules. Will you initiate and would you support an aggressive agenda for developing trade law strengthening measures in an interagency process that can be offered in the negotiations? And if so, will you let us know what we are doing? Both of us have a lot of manufacturing in our States, and this trade is important.

Secretary GUTIERREZ. I appreciate that, Mr. Chairman. If I could just say, there was a ministerial meeting in December, and of course, the Doha Round. One of the reasons why I think CAFTA is so important is that we want a strong position at the table. We have to make sure we hold our own, and I am concerned that if we cannot pass CAFTA that we will not be as strong as we need to be. There will be a sense that the United States is losing its edge. We could not get Central America, so that gives other negotiators a sense of strength at the table. I agree we cannot weaken our position at the WTO.

Senator SHELBY. Sure. But trade has got to go on. We have got to be on top of it. And a lot of that comes under your jurisdiction.

Secretary GUTIERREZ. Absolutely.

SPECTRUM MANAGEMENT

Senator SHELBY. Mr. Secretary, given the Department's critical role, the Commerce Department, in implementing the President's Spectrum Policy for the 21st Century, what are the long-term plans for spectrum management, and how will you work with the Federal Communications Commission and other relevant agencies in this

endeavor? In other words, what are your priorities with spectrum management, and what do you see as the most significant impact it will have on the commercial industry? Because it certainly will have some.

Secretary GUTIERREZ. Spectrum, as you know, is incredibly valuable. The President has said we want to give every citizen digital access. We do not want to take away access to digital. That is going to take some time, but by 2007, we want all homes in the country to have access to digital.

Senator SHELBY. How are you going to get there?

Secretary GUTIERREZ. A lot of these come down to local communities and how we ensure that we do not just take away service from people who rely on analog television and analog services. But once that is done, and that is in the planning now, that spectrum can be allocated to businesses. We are also getting spectrum from the Defense Department.

Senator SHELBY. It will have a tremendous value, will it not?

Secretary GUTIERREZ. It is one of the most valuable allocations that we will do over the next couple of years. It is the most valuable real estate we have. So I agree, and I would like to report back on how that is shaping up.

[The information follows:]

SPECTRUM MANAGEMENT

President Bush recognized that ensuring needed access to the spectrum resource is a critical element in satisfying diverse U.S. interests, such as national defense, public safety, transportation infrastructure, scientific research, and consumer services. The goals of the President's Spectrum Policy are to: foster economic growth; ensure our national and homeland security; maintain U.S. global leadership in communications technology development and services; and satisfy other vital U.S. needs in areas, such as public safety, scientific research, federal transportation infrastructure, and law enforcement.

The Department's long-term plans for spectrum management are to carry out President Bush's direction and implement the recommendations which we have provided the President, to carry out his Spectrum Policy for the 21st Century that will significantly improve the spectrum management system.

The recently enacted Commercial Spectrum Enhancement Act creates a spectrum relocation fund, an important mechanism to facilitate the reallocation of spectrum from governmental to commercial uses. The Department, through the National Telecommunications and Information Administration (NTIA), will carry out the provisions in the Act associated with federal government spectrum management. In June 2006, the FCC plans to auction 90 MHz of spectrum for advanced wireless services, half of which is spectrum that will be transferred from Federal government to commercial use under the provisions of the Commercial Spectrum Enhancement Act.

Senator SHELBY. Mr. Secretary, does CPB, the Corporation for Public Broadcasting, provide more limited assistance to public broadcasting stations than PTFP? Do you know? Will CPB be able to provide grants previously provided by PTFP, that is the Public Telecommunications Facilities Planning and Construction Program grants?

Secretary GUTIERREZ. My understanding, Mr. Chairman, is that they will.

Senator SHELBY. That gets into digital conversion.

Secretary GUTIERREZ. Yes, and we have reduced our involvement. I think we have money in the budget for phasing out that program. The Public Broadcasting System continues, and I believe that the money allocated in the budget is sufficient, and that they will be able to operate. Does that answer your question?

Senator SHELBY. Senator Mikulski.

Senator MIKULSKI. Thank you, Mr. Chairman.

INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE

Mr. Secretary, the questions offered by the chairman very much parallel my own. We have worked together since we were in the House of Representatives, as I said. A lot of what we are talking about here can definitely be done on a bipartisan basis.

I would like to pick up once again on the international trade issue. Your comment that you just got an intellectual property coordinator was fascinating, because this is a new—this is the first time I have heard this. Could you share with us what that intellectual property coordinator will do and how that person will work with the international trade rep? Is this one person? Is this one person with 100 people? What is the——

Secretary GUTIERREZ. Yes; one person with 100 percent of his or her time on intellectual property only. That is all they will do. They will report to me. They will work with NIPLECC very closely and they will be the conduit to all of the other agencies. There is a lot of work that we can be doing with USTR, but there is also work we can be coordinating with the Justice Department, because a lot of this is enforcement. A lot of this is frankly just tearing down some networks of intellectual property violations and making sure that people are punished.

A lot of it is just straightforward implementation. This person will ensure that we have got priorities, that we are coordinating it, that we know what we are trying to do, that we are measuring progress, because today, it is just very general.

Senator MIKULSKI. It is very general.

Secretary GUTIERREZ. It is very general because it is such a complex area, and we know it is a problem, but we are not sure if we are making progress or not. Hopefully, we will be able to report to you with specific measures as to how much progress we are making such as how many networks have we prosecuted, how many countries have put laws in place, and how many companies have been shut down in foreign countries. I look forward to doing that.

[The information follows:]

INTERNATIONAL PIRACY

The U.S. Department of Commerce is working at making combating international piracy and counterfeiting a priority. For example, it is working on the Strategy Targeting Organized Piracy (STOP) Initiative, which has been developed over the last year. STOP is the most comprehensive U.S. government-wide initiative ever advanced to demolish the criminal networks that traffic in fakes, stop trade in pirated and counterfeit goods at America's borders, block bogus goods around the world, and help small businesses secure and enforce their rights in overseas markets. While STOP is a multi-agency effort (e.g., the Department of Justice focusing on the criminal prosecution of criminal networks), Commerce is involved in many facets of this initiative.

Building Coalitions

The ultimate success of the STOP Initiative involves building coalitions with many of our like-minded trading partners, such as Japan, the United Kingdom, and France, who have all recently launched similar initiatives. We are seeking to continue working with our partners in the G–8, Organization for Economic Cooperation and Development (OECD) and the Asia-Pacific Economic Cooperation (APEC) forum. Cooperation on new initiatives to improve the global intellectual property environment is essential to disrupting the operations of pirates and counterfeiters.

Criminal Prosecution

Earlier this year, the U.S. Department of Justice announced the successful prosecution an international piracy enterprise. "Operation Higher Education" focused on the highest levels of these so-called "release groups." The top release groups, also frequently referred to as "warez groups," are the first-providers—the original source for the illegal trading and online distribution of pirated works. Once a release group prepares a stolen work for distribution, the material is distributed in minutes to secure, top-level servers and made available to a select clientele. From there, within a matter of hours, the pirated works are illegally distributed throughout the world, ending up on public channels on IRC and peer-to-peer file sharing networks accessible to anyone with Internet access.

The three convictions, while the first U.S. convictions for Operation Higher Education, bring the total number of domestic convictions for Operation Fastlink to six thus far.

International Outreach

A delegation of U.S. officials from seven federal agencies, including Commerce, recently kicked-off our international outreach effort to promote STOP internationally. Earlier this year, we visited various capitals in Asia generating much interest and fruitful discussions. On each leg of the trip, U.S. officials shared information on our efforts to combat the theft of inventions, brands and ideas. This first leg abroad is advancing our commitment by enlisting our trading partners in an aggressive, unified fight against intellectual property theft. Outreach to Asia was followed by visits to other capitals, for example, sending a delegation to Europe. We have tentatively planned that countries receptive to cooperation on STOP will be invited to attend a meeting in Washington, D.C. (likely in the fall of 2005) designed to formalize their participation and finalize a work plan.

As we look to the future, however, let me state a positive note. Although by all accounts counterfeiting and piracy appear to be growth "industries," there have been some recent successes in attacking the problem. Between 2001 and 2002, the software industry estimates that software piracy in Indonesia decreased from 89 percent to 68 percent. In South Africa, it fell from 63 percent to 36 percent. The motion picture industry has reported a decrease in piracy levels in Qatar from 30 percent in 2001 to 15 percent in 2002. In Bahrain, there have been dramatic and systemic improvements in IP protection and enforcement over the past few years. These include the signing of numerous international IP conventions and the virtual elimination of copyright piracy and counterfeiting in retail establishments.

There is some reason for optimism. I remain hopeful that with the continued support and partnership of the Subcommittee, we will be able to do even more to provide American businesses and entrepreneurs with the IP knowledge and protection they need. As we proceed with this and other IP initiatives, we will be pleased to describe our specific progress.

OFFICE OF CHINA COMPLIANCE

Senator MIKULSKI. Well, we look forward to hearing about it too, because this is essentially a form of, you know, unarmed robbery in some ways. Now, we also note that we in the Congress supported an Office of China Compliance to focus particularly on China issues in the area of international trade that would affect small and medium-sized business. Can you tell us, then, what does the Office of China Compliance as you see it do, and do you see them as promoting us to sell products there or also to one of these areas where we would be again protecting our intellectual property?

Secretary GUTIERREZ. It is a combination of assuring that our partners in China are abiding by our agreements and that we have access to their market. It includes intellectual property rights violations. It is a very broad agenda, and that is one of the reasons why it is good to have a coordinator. It also includes enforcement of antidumping provisions.

Senator MIKULSKI. That is a big job, this Office of Compliance.

Secretary GUTIERREZ. I brought some facts.

Senator MIKULSKI. Do you have enough resources for this office? Because I think this and India are—there will be other countries, but these will be our two big——

Secretary GUTIERREZ. We have had more antidumping cases in the last 2 or 3 years than we have in the past 10. We have increased the activity substantially and we believe we can be even more effective.

Senator MIKULSKI. What areas of antidumping? You know, we were brought to our knees in steel.

Secretary GUTIERREZ. Let me give you some examples of cases: folding gift boxes, glass windshields, tables and folding metal chairs. These are all antidumping cases against China. And by the way, it is 28 against China. In the last 8 years, we had 25. So you already had more than what was done in the past 8 years: structural steel beams, welded carbon quality steel pipes, furnace coke products, saccharin.

Senator MIKULSKI. Saccharin?

Secretary GUTIERREZ. You name it: ball bearings, tubular goods, fence posts.

Senator SHELBY. Machine tools.

Secretary GUTIERREZ. We have some machine tools. We have iron pipe fittings, television receivers. I would love to share this with you.

Senator MIKULSKI. I would like to see.

There are many issues in this area, and I just want to share two yellow flashing lights, and then, I want to just go to an NIST issue and an EDA issue in the interests of time.

I mean, that can drive you crazy. I mean, it sounds like small folding chairs. But then, the next thing you know, it is dining room sets, and then, it is this, and then, it is that. And then, all of a sudden, whole towns in North Carolina or Alabama or Maryland are just switched in and out. So it is one thing to compete, but it is another to deal with this. So that is one issue.

INTELLECTUAL PROPERTY VIOLATIONS

The other area where I am worried about violation of intellectual property is where they are sending in essentially knockoffs of pharmaceuticals or over the counter medications and so on. You just mentioned saccharin. Diabetes is a characteristic in our economy. So we use these kinds of products. Just imagine if somebody made something under very paltry circumstances, and if my mother, God rest her soul, thought she was using saccharin, but it really was not saccharin, and all of a sudden, it messes up her with her insulin and everything else.

Then, that's just a small thing. That's an over the counter. It is not small to a diabetic. But then, let us get into someone bringing in phony glucophage or phony abandia or knockoff this or that do not meet the standards. It is one of the things that raises my concern about the inflow of drugs. Is this an area that you are involved with? Is this Justice? Is this another agency? Because this, then, goes to not only our economic security but actually our physical, our very physical safety.

Secretary GUTIERREZ. There is a big component to this, the importation of pharmaceuticals.

Senator MIKULSKI. Oh, no, we know.

Secretary GUTIERREZ. And that is really what is driving it. It is more about getting the safety. If we can get that right, then, we can talk about the commercial part.

Senator MIKULSKI. But that is where you would have to team up with FDA, right?

Secretary GUTIERREZ. Yes. And that is why we absolutely support what FDA is doing. If they are saying the safety is not there, then, there is no commerce.

Senator MIKULSKI. Let us go, though, back to your—you know, Mr. Chairman, I found it interesting as Mr. Gutierrez has shared with us all these rules and chemical ever made and every chemical that might be made, et cetera. Do you see this as a way that they are using it to protect, say, their own societies for safety, or do you see this as inventing bureaucracy as a way to be Fortress Europe, or is that something you would rather comment in more genteel terms?

Secretary GUTIERREZ. It is a great question.

Senator MIKULSKI. You are part of our commercial business diplomatic corps.

Secretary GUTIERREZ. I can comment in my business experience with Europe. I can tell you it is a very difficult place to do business. There are a lot of regulations. There are European regulations, and there are also country regulations, and sometimes, they are not the same. I think there is an element where they believe that they are doing the right thing for their societies by having all of these regulations that they believe will protect.

But what is happening is that they are actually impeding the growth of many of their businesses, because their businesses would rather take their capital elsewhere. That is why we would love to see Europe grow faster than 1.5 or 2 percent. I think it grew 1.7 percent last year. Countries like Germany, where the unemployment is 12 percent, the growth rate is less than 1 percent, and we believe, respectfully, that a lot of this has to do with unnecessary regulation and very aggressive tax policy. Taxes are too high, and they have too many regulations.

Senator MIKULSKI. So these are—coming back to my desire for an innovation economy and working in partnership, these are lessons learned from us.

Secretary GUTIERREZ. Yes.

Senator MIKULSKI. In other words, let us protect public health, let us protect public safety, but let us not——

Secretary GUTIERREZ. Yes.

Senator MIKULSKI [continuing]. Move in a direction that is so excessive and overexuberant we end up with—you cannot have a safer society unless you have a stronger economy.

Secretary GUTIERREZ. You are absolutely right. That is the key. That is what they have learned from us, that if they can grow, they can do a lot of things for their society. If they cannot grow, they can do a lot of damage.

STRENGTHENING AMERICA'S COMMUNITIES INITIATIVE

Senator MIKULSKI. Let me go to the EDA totally shifting gears. We know that you are going to be introducing legislation on

strengthening American communities, but should not pass as we go through the appropriation this year, there is no money for EDA here except to monitor existing grants. Do you have a plan A and plan B, plan A being the President's position, we understand, moving that legislation forward against, I might add, quite a bit of resistance? But should that not be passed by October 1, this now being June 1, what would be your plan B to fund EDA? To keep it at this year's level or——

Secretary GUTIERREZ. We would have to go back and revisit our programs, the programs we are bringing over. Our plan is based on being able to bring over all the programs from five, six different agencies, HUD being one of them. And that is what we are planning for and what we are looking forward to. If that for some reason does not take place, we will have to go back and revisit the whole design.

Senator MIKULSKI. I know the chairman was, you know, representing the majority party, I know. I will tell you: our communities depend on EDA, and while we are working on strengthening America's communities, and that is being more creative and more efficient, the fact is that they are going to want to know what about this year? Will there be an EDA? And, you know, what we will do or the way that we can do that.

STANDARDS AND INTEROPERABILITY

The last just comment I want to make about NIST and the fact that we are so concerned about its reduction in funds, pick up on Senator Shelby and homeland security. What we are saying is we spent a lot of money on protecting your nation, and we are now concerned that this could go to boondoggle. And there are a lot of—there is a lot of, quote, gear being sold. Senator Shelby spoke about the interoperability. Crucial. Because remember, we in the Capital region are several Maryland jurisdictions, the District of Columbia as well as Northern Virginia. So this is big stuff.

But then, at the same time, there are now all of these things from digital cameras to a lot that law enforcement and first responders are buying, and what we hear continually from the private sector, whether it is in IT or other types of protective things that they buy that there is a lack of Federal, national standards, that this is not a priority with Homeland Security, and it needs to be a priority.

And we feel that NIST would be one of the places, particularly those things that are used so that when they are buying it, they know whether it will be interoperable, whether there will be certain standards in terms of efficacy, et cetera. Is this an area where you see NIST coordinating with the Secretary of Homeland Security, where we really are getting value for our dollar in terms of those things that they buy really to either protect the first responder or protect the community?

Secretary GUTIERREZ. Absolutely. NIST, as you know, has been working very closely on the World Trade Center.

Senator MIKULSKI. I know. It is fascinating. We enjoy it.

Secretary GUTIERREZ. That leads to standards for the future.

Senator SHELBY. Mr. Secretary, without standards, though, there is no interoperability.

Secretary GUTIERREZ. That is absolutely right.

The other part about standards that we have to tackle, is the international part, because some countries may be using standards as a trading strategy.

Senator SHELBY. Sure.

Secretary GUTIERREZ. So if they can get their standard into China, we are left out, because our standard does not work in China. So it is domestic; it is international; and it is also a very big issue down the road.

Senator SHELBY. Somebody has got that edge.

Senator MIKULSKI. Well, let us look right now, because we may not be able to deal always with some of these issues facing us internationally. But America is committed to protecting its homeland and protecting, whether it is law enforcement or other first responders. We are committed to protecting them as citizens and as taxpayers. So this is why I think they are so keen on the standards issue, particularly in the area of those things that are most frequently bought in the area of homeland security and the need for efficacy, interoperability, things that the chairman has raised and that, you know, I have seen examples of exactly what you said, from the bullet proof vest to the digital camera to some other things.

Secretary GUTIERREZ. I will take that with me. I know it is a big priority for you, and I will be glad to come back and report.

Senator MIKULSKI. I think that is it, Mr. Chairman. There are many things that we could discuss, like the helicopter; saving lives and saving livelihoods.

Senator SHELBY. Let us keep talking, Mr. Secretary, over time. We know our staffs will.

[The information follows:]

INTERNATIONAL STANDARDS

The Department of Commerce's National Institute of Standards and Technology (NIST) provides the measurement and standards infrastructure and information needed to support U.S. manufacturing competitiveness in the global marketplace.

Some examples of NIST efforts already underway to ease regulatory barriers to U.S. exporters include working with industrial laboratories to ensure that manufacturers of telecommunications equipment have efficient access to foreign markets. NIST is the U.S. authority empowered under the Asia-Pacific Economic Cooperation (APEC) Telecommunications Equipment Mutual Recognition Arrangement and the U.S.-European Union Mutual Recognition Agreement to designate qualifying U.S. organizations as competent to certify U.S. telecommunications equipment as meeting foreign regulatory requirements and ready for direct export to APEC and European Union countries. As a result of NIST's work, U.S. manufacturers of telecommunications equipment are now able to certify their products in the United States and ship directly to Canada. Two-way trade of telecommunications equipment between the two neighbors totals some $7 billion annually. U.S. organizations designated by NIST can test products for three other APEC markets—Australia, Chinese-Taipei and Singapore—as well as for the European market.

NIST has led efforts to align United States and international legal metrology standards to ensure acceptance of U.S. instrumentation for scales and meters both domestically and internationally. The development and implementation of the International Organization of Legal Metrology Mutual Acceptance Arrangement will reduce the number of evaluations to which scale and meter manufacturers must be subjected, thereby reducing costs to manufacturers and reducing the time-to-market for new products. The total market for measuring instruments is estimated to be $5 billion worldwide.

NIST is also supporting U.S. manufacturers of in vitro diagnostic (IVD) medical devices in maintaining access to the $6 billion a year European market. U.S. manufacturers supply approximately 60 percent of this market. Recently implemented

European regulations codified traceability requirements for control of these devices, requiring reference to "available reference measurement procedures and/or reference materials of higher order." U.S. IVD manufacturers requested that NIST provide the internationally recognized certified reference materials and reference methods needed to meet this traceability requirement. NIST led the efforts of the Joint Committee on Traceability in Laboratory Medicine to establish a process for identifying and reviewing the reference materials and methods against agreed upon criteria. NIST has published 72 of the approximately 150 Certified Reference Materials and 30 of the approximately 100 Reference Measurement Procedures required for compliance with the European Community directive regarding IVD medical devices.

NIST has identified work needed to ensure that state-of-the-art measurement technologies and standards that are under development in fields such as nanotechnology, biotechnology, and information technology are applied in support of U.S. manufacturing trade and exports. If U.S. businesses are to compete successfully in global markets, they need to design and manufacture products to globally accepted standards and tie their processes and products to international standards of measurement that are provided by NIST. NIST has identified key areas where U.S. standards and calibrations must be aligned with international standards to give U.S. manufacturers seamless access to foreign markets. NIST highlighted the need to monitor the development of foreign and international standards for potential impact on U.S. exports and the importance of making the resulting information easily accessible to U.S. manufacturers. The funding for this effort was requested in the President's fiscal year 2006 budget request for NIST. NIST's fiscal year 2006 budget also included funding to expand its current cooperative standards-related information and assistance programs that target emerging markets (such as China, India, South Korea, Brazil, Russia) where standards-related requirements are still being formulated and to accelerate global recognition of measurements performed by U.S. manufacturers.

ADDITIONAL COMMITTEE QUESTIONS

Senator SHELBY. We appreciate your appearance here today. We know it is your first appearance, and we appreciate your coming to this small room. It has got its advantages, too. But we will continue to work with you, because you have got some real challenges, and so do we working with you on this budget and programs. We need certainty when we are funding things. You need certainty, too, in carrying them out.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

BOULDER FENCE

Question. What is the status of the fence surrounding the Boulder facilities? Where do things stand with the city of Boulder? What are the current plans, timelines, and costs estimates? How does the Department intend to pay for the fence's construction?

Answer. The final location of the fence line has been determined and the City Manager was notified on April 13, 2005. Tribal representatives have been notified as well. Design and material selection is continuing and should be at 90 percent completion by September 2005.

DOC has worked in close consultation with the City of Boulder throughout the process to assure compliance with the Memorandum of Agreement (MOA) with the City and Tribes, and we have taken into account the concerns and suggestions from Boulder citizens, as well as from agency staff at the Boulder Laboratories.

A response letter to this official notification was sent to the National Institute of Standards and Technology (NIST) Boulder Director on June 9, 2005, from the City of Boulder, Office of the City Manager. The letter states, "The City is appreciative of the changes that the Department of Commerce has made to the proposed security improvements in response to concerns that the City has expressed about earlier proposals . . . At this time the City remains unconvinced of the need for a fence. If Commerce chooses to go forward in developing a fence, the City will insist that the terms of the MOA and the easement be abided by should any portion of such

proposed fence trigger these agreements." The City has requested additional information on the outdoor lighting that will be part of the proposal; the design and material of the proposed fence and its effect on wildlife migration; the location, size and design of the boulders or bollards proposed to be placed on the east side of the NOAA building and where these would be located within the protected area or the City's right-of-way. The letter further states, "depending on a review of this information, the City may still express concerns or objections to this latest proposal."

The NIST Boulder Director met again with City staff on June 24, 2005, and is writing a letter that will be delivered to the City in the near future in response to the questions posed in the June 9th letter and during the June 24th meeting. It is expected that the letter will provide assurances on most of the details of compliance with the MOA and with City codes.

Fence design is continuing in more detail now that the fence location is determined, and a 90 percent complete design is expected by September 2005. Costs including fence material, installation, and electronics (cameras) cannot be accurately estimated until the design is final.

Once the design is finalized and cost estimates developed, the Department will work through the President's Budget process to determine where funding for the effort falls within other Department and Administration priorities.

The President's fiscal year 2006 budget does not include funding for the fence construction. Additionally, the Senate Appropriations Committee mark on NIST's fiscal year 2006 Budget Request contains language that requires the Department of Commerce to consult with the committee prior to proceeding with any security enhancements at the Boulder location and prohibits the redirection of funding from other proposed construction projects at Boulder for security improvements.

HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP: "SMALL AND RURAL STATES" PILOT PROGRAM

Question. Congress required NIST to submit an implementation plan for the "Small and Rural States" pilot program within the Hollings Manufacturing Extension Partnership. This plan was due April 15, 2005. The plan is now a month and a half late. When can the Committee expect to see the plan?

Answer. The implementation plan is currently under development and review within the Administration.

QUESTIONS SUBMITTED BY SENATOR ROBERT C. BYRD

EMERGENCY STEEL LOAN GUARANTEE PROGRAM (ESLGP)

Question. Throughout his time in office, President Bush has stated—over and over again—that he is a staunch defender of America's steel industry. He has told West Virginia steelworkers and other steelworkers across the nation that he will stand by them. Yet his budget for each of the past three years has recommended rescission of all of the available funds in the Emergency Steel Loan Guarantee Program (ESLGP).

I helped establish the ESLGP in 1999 to help American steel companies in distress. The program has been absolutely critical in helping U.S. steel producers obtain necessary financing. It has saved the day for thousands of steelworkers and retirees across the nation—from Hanna Steel Corporation in Tuscaloosa and Fairfield, Alabama, as well as Pekin, Illinois, to Wheeling-Pittsburgh Steel in Wheeling, West Virginia. I understand that even the loan that was awarded to Geneva Steel in Utah, a company that initially was in default, is now being repaid.

So this has been and continues to be a very successful program. It therefore needs to remain available to ensure the future of America's steel companies, their workers, and thousands of retirees, who are in critical need of health insurance and pension benefits, and may now live on limited incomes.

I would appreciate the Administration's support in maintaining this important program.

Answer. There has been a low level of utilization of the Steel Program since its inception. Only three loan guarantees under the program have been closed and funded. And only two of these are still performing.

The fiscal year 2004 Appropriations Act extended to December 31, 2005, the authority to guarantee new loans under the Emergency Steel Loan Guarantee Program. No applications were received during this extension period so far and no applications are currently pending. The Administration proposes rescinding $50.2 million of unobligated balances of loan subsidy in 2006.

WTO NEGOTIATION STRATEGY

Question. The Trade Act of 2002 requires significant effort by the Bush Administration to preserve U.S. trade laws in the ongoing WTO Round. During your confirmation, you assured Senator Rockefeller that you would "vigorously defend and enforce our existing trade remedy laws, and implement those laws as intended to stop dumped or subsidized goods from injuring U.S. industries."

While other countries are making a multitude of proposals to dismantle U.S. trade laws, there appear to be few creative, new proposals being proposed by the U.S. government to preserve and enhance our critical antidumping and countervailing duty laws.

Can you please explain the Bush Administration's strategy to "vigorously defend and enforce our existing trade remedy laws" in the Doha Round's trade negotiations?

Answer. Our negotiating strategy is quite clear: (1) To maintain the strength and effectiveness of the trade laws; (2) to enhance transparency and due process requirements; (3) to enhance disciplines on trade distorting practices that lead to unfair trade; and (4) to ensure that dispute settlement panels and the Appellate Body do not impose obligations that are not clearly contained in the Agreements.

Furthermore, the specific concerns raised by Congress in the Trade Promotion Authority have been identified and will be addressed as part of the Rules negotiations. The Administration has actively participated in the Rules negotiations thus far, both in terms of pursuing our own objectives and challenging the proposals of others. The Commerce Department is committed to strengthening WTO trade remedy rules and ensuring that they remain effective in addressing the problems of unfair trade.

CONTINUED DUMPING AND SUBSIDY OFFSET ACT

Question. The Administration has recognized that the WTO decision on the Continued Dumping and Subsidy Offset Act of 2000 or "CDSOA," also known as the Byrd Amendment trade law, incorrectly imposed obligations on the United States by prohibiting the distribution of monies collected as antidumping and countervailing duties on unfairly traded U.S. imports. Congress has repeatedly called for negotiations in the Doha Round to address this issue, not only in many letters sent to the Administration, but also in the fiscal year 2004 and fiscal year 2005 Consolidated Appropriations Acts. Report language accompanying both of those appropriations bills, signed into law, also directed the Administration to report to the Appropriations Committee every 60 days on the status of those negotiations.

I have not been briefed one time on the status of these negotiations. I understand that Commerce Department officials have a very important role in those negotiations, as do USTR negotiators. By law, the Administration has been directed to negotiate a solution to this trade dispute.

In April 2004, the United States did submit a proposal in the Rules negotiations to recognize "the right of Members to distribute monies collected from antidumping and countervailing duties." During the confirmation process, you explained that the Department of Commerce and the Office of the U.S. Trade Representative were consulting to ensure proper implementation of the requirements of U.S. law regarding negotiations over CDSOA distributions and would complete those consultations as soon as possible. You also agreed to continue to work to advance congressional objectives in the Doha Round negotiations, including reversal of the adverse CDSOA decision.

Since committing to "pursue changes to those Agreements that will reverse specific adverse findings, including those regarding the Continued Dumping and Subsidy Offset Act," the United States has not submitted any further proposals to recognize the right of Members to distribute monies collected from antidumping and countervailing duties.

On May 23, 2005, U.S. Trade Representative Rob Portman sent me a letter in which he stated that he wants to work closely with me on the Byrd Amendment to determine "the best way to forge the required consensus in the negotiations."

Can you please explain how the Administration intends to obtain an acceptable and expeditious solution to the CDSOA dispute at the WTO? When will there be a briefing by the Administration on the status of the negotiations concerning this dispute?

Answer. The Administration intends to continue to address this issue in the context of the WTO's ongoing Doha Round of multilateral trade negotiations. While the United States has not proposed any legal text on this issue, in April 2004, the Administration did submit a paper in the WTO Negotiating Group on Rules indicating our intent to negotiate on this matter, as you noted.

The Rules negotiations are entering a critical phase, and the Commerce Department is working earnestly and in concert with the Office of the U.S. Trade Representative (USTR) to satisfy Congressional objectives. The Commerce Department is working with USTR to draft a second-generation proposal on this issue. We are also prepared to assist the USTR with its responsibilities in reporting to Congress on the progress of these negotiations, and specifically on negotiations over the right of Members to distribute antidumping and countervailing duties. We would be pleased to consult with you and your staff on this paper as the drafting process advances.

COLLABORATION WITH U.S. TRADE REPRESENTATIVE

Question. Over the past two years, the United States has been on the receiving end of more adverse GATT and WTO challenges than any other WTO Member. Roughly half of all WTO decisions have been issued in cases that challenged U.S. measures, and over three-quarters of those decisions addressed the administration of our trade remedy laws. It is clear that the WTO dispute settlement system has been used unfairly to threaten U.S. sovereignty and to erode the effectiveness of our trade remedy laws. Despite this, the United States has only made four publicly available submissions in the dispute settlement negotiations concerning two topics.

How do you intend to collaborate with USTR to redress this imbalance? What is your strategy to rapidly generate textual proposals that can protect and enhance the U.S. trade laws?

Answer. I intend to continue working very closely with the Office of the United States Trade Representative to advance the negotiation of changes to the WTO Dispute Settlement Understanding, as well as the Antidumping and Subsidies Agreements, that aim to correct the most egregious WTO decisions and to ensure that, in future disputes, the panels and the Appellate Body will adhere to the appropriate standards of review.

In the dispute settlement negotiations, the United States has already submitted detailed textual proposals that would serve to achieve the first two elements of our strategy: increasing WTO Members' control over the dispute settlement process and increasing the transparency of that process. With respect to the Rules negotiations, the Administration believes that the negotiations should now focus on "clearing the underbrush" so that the way forward to a text-based negotiation sometime after the Hong Kong Ministerial Meeting is clear. At that time, the Administration will be prepared to pursue our Rules-specific dispute settlement concerns with textual proposals.

Question. Specifically concerning the issue of the Doha Dispute Settlement negotiations, during your confirmation process, you offered a general strategy of: (1) increasing member nations' control over the dispute settlement process; (2) increasing transparency; (3) pursuing changes to the Rules Agreements to ensure that panels and the Appellate Body adhere to the appropriate standards of review; and (4) pursuing changes to the Rules Agreements that "will reverse specific adverse findings, including those regarding the Continued Dumping and Subsidy Offset Act, 'zeroing,' and injury determinations." The United States has not submitted any recent, concrete proposals addressing any of the items highlighted in your strategy.

Can you please explain how you intend to advance the negotiation of changes to the WTO dispute settlement system or the Rules Agreements to reverse this long line of adverse trade remedy decisions? Can you provide a timeline of when we can expect such proposals to be submitted?

Answer. I intend to work very closely with the Office of the United States Trade Representative to advance the negotiation of appropriate changes to the WTO Dispute Settlement Understanding, as well as the Antidumping and Subsidies Agreements.

In the context of the dispute settlement negotiations, the Administration intends to continue pursuing the textual proposals the United States has submitted that would increase WTO Members' control over the dispute settlement process and the transparency of that process.

In the Rules negotiations, the United States has identified as an issue for further negotiation the need to ensure that panels and the Appellate Body adhere to the appropriate standards of review. With respect to zeroing, the United States has already identified the topic as one of our priorities in the Rules negotiations and is taking the necessary steps to address this important issue. The United States tabled a paper that outlines our views on zeroing and will continue to advocate for the continuance of our long-standing practice as the discussions move forward. With respect to injury determinations, the United States tabled a paper in early July addressing

the Appellate Body's adverse findings with respect to this issue. The Administration intends to pursue these proposals vigorously as the negotiations advance.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

NOAA PACIFIC REGION CENTER

Question. For several years, my office has worked in partnership with the National Oceanic and Atmospheric Administration toward the construction of a consolidated regional facility for the agency in Hawaii. A site—Ford Island in Pearl Harbor—has been selected after an exhaustive search, and the design process and environmental permit process is underway. All told, the Hawaiian Archipelago comprises over 20 percent of the United States' Exclusive Economic Zone. We are in the midst of a designation process that will lead, I believe, to the creation of the world's largest marine sanctuary. Our pelagic fisheries produce the world's best sashimi-grade tuna, and although they are currently healthy, vigilance in management is necessary to ensure that the international fleets follow America's lead in responsible fishing practices. Our National Weather Service region is the largest in the nation, and our climate and weather scientists lead the world in pushing back the frontiers of understanding the Pacific's meteorology. Their excellent work is matched by corresponding initiatives for coastal disaster management from an all-hazards point of view—initiatives that are developed in Hawaii and then used as patterns among other Pacific Islands.

These efforts are currently hosted in a variety of inadequate and scattered spaces throughout the Island of Oahu. Lease costs are high, and in some cases, the physical plants of the buildings are in serious decay. I would appreciate learning your thoughts on the NOAA consolidated facility.

What NOAA programs are currently in Hawaii?

Answer. The following NOAA operations are supported on the island of O'ahu, Hawaii:

—NMFS—National Marine Fisheries
  —Pacific Islands Regional Office
  —Pacific Islands Fisheries Science Center and Honolulu Lab
  —Office of Law Enforcement
—NWS—National Weather Service
  —Pacific Region Headquarters
  —International Tsunami Information Center
  —Honolulu Electronics and Technical Support Unit
  —Tsunami Warning Center (this program is not planned for consolidation at the Pacific Region Center, due to operational considerations)
  —Weather Forecast Office
—NOS—National Ocean Service
  —Pacific Regional Office
  —National Marine Sanctuary Program
  —NW HI Coral Reef Ecosystem Reserve
  —HI Humpback Whale National Marine Sanctuary
  —Pacific Services Center
—OMAO—Office of Marine Aviation Operations
  —Marine Operations Center—Pacific
—OAR—Oceanic & Atmospheric Research
  —Climate Monitoring and Diagnostics Laboratory
  —Forecast Systems Laboratory
  —Joint Institute for Marine and Atmospheric Research
  —Office of Global Programs
  —Undersea Research Center
—Office of General Counsel and Office of Public Affairs

Question. How many NOAA employees are currently in Hawaii?

Answer. There are nearly 400 employees (NOAA, Joint Institute for Marine and Atmospheric Research, contractors, etc.) in Hawaii.

Question. What facilities are currently available for these programs and employees?

Answer. There are ten different facilities currently used to support these programs and employees:

Occupant	Location
OMAO	#1 Sand Island Snug Harbor
NMFS	300 Ala Moana Blvd

Occupant	Location
NMFS	2570 Dole Street
NMFS	Kewalo Basin
NMFS	501 Sumner
NMFS	1601 Kapiolani
NOS	6700 Kalanianole Highway Hawaii Kai Plaza
NWS/NOS	737 Bishop St
NWS	220 Kalihi St
NMFS	9–193 Aiea Heights

Question. Describe the status of these facilities. In particular, give reference to the age and physical condition of laboratory facilities, pier space and facilities for NOAA vessels, and the adequacy of space for the number of employees housed at each facility.

Answer. The current facilities are overcrowded and inadequate to support current and future NOAA programs in the Pacific Region. Over the next 5–10 years, NOAA expects program growth in Pacific Region programs to increase this employee base by a modest amount.

NOAA's program space requirements can generally be broken down into three types of space/operations: Office/Lab Space; Ship Operations Space; and Sea-Water ("Wet Lab") Lab Space.

Office/Lab Space.—The NOAA laboratory located at the University of Hawaii, Manoa Campus (Dole Street Lab) was constructed in 1949 to house 45 employees of the National Marine Fisheries Service. By the mid-1990s, the lab's programs had grown to over 129 staff and the facilities had deteriorated significantly; thus prompting the plan to replace the Dole Street Lab with another lab facility on the same site. In addition to this location, NOAA leases office/lab space for other programs (including National Oceans Service, National Weather Service).

Ship Operations.—NOAA's ship operations are supported at the Snug Harbor location. The current location of the ship operations support facility was barely able to adequately support two ships (due to limited pier space and operational facilities) and cannot support the existing three ships (KA'IMIMOANA, OSCAR ELTON SETTE, HII'IALAKAI). NOAA requires a permanent and cost-effective docking and ship operations solution that will accommodate both current and future ship operations requirements, and has been forced on an interim basis to negotiate temporary berthing arrangements with Navy Region Hawaii at the Ford Island site.

Seawater Lab Space.—The current seawater (wet lab) facility at Kewalo Basin supports critical fisheries, marine mammal, and sanctuaries programs. This facility is overcrowded, cannot be expanded at its current location, operates on a month-to-month rental basis, and is at risk of being forced out of its current location because of a larger development plan for the area (published plans from the Hawaii Community Development Authority call for a major redevelopment of the Kewalo Basin and surrounding area). Therefore, a more permanent solution to NOAA's seawater laboratory facility needs is required.

Question. What financial costs would be necessary to remediate any deficiencies identified in the previous question?

Answer. If NOAA were to maintain the separate locations identified above to support NOAA's operations and programs, substantial investments would be required to replace the facilities at Dole Street Lab, and to develop alternative facilities to replace the current Snug Harbor and Kewalo Basin facilities. The existing facilities have either outlived their useful lives (as is the case with Dole Street Lab); will not be available in the future (as is the case of Kewalo Basin); or their capacity cannot support current or future programs and operations (Snug Harbor, et al.). In addition, given the growth projected in NOAA's programs over the next five to ten years, NOAA would also need to lease increasing amounts of office space to support a modest increase in employee population. These investments in both increased leased space and in capital investments that would otherwise be required to support NOAA's current and future mission and operations in the Pacific Region are estimated at more than $265 million. This is substantially more than preliminary estimates for the projected cost of the Pacific Region Center.

Question. What is the projected growth for the agency in Hawaii?

Answer. There are nearly 400 employees (NOAA, Joint Institute for Marine and Atmospheric Research, contractors, etc.) in Hawaii. Over the next 5–10 years, NOAA expects a program growth in Pacific Region programs to increase this employee base by a modest amount.

Question. What are the projected financial costs of accommodating that growth if each program continues as it does now—pursuing its own facilities needs inde-

pendent of one another, and without any central planning? Compare these costs with those of the consolidated facility.

Answer. The investments in both increased leased space and in capital investments that would otherwise be required to support NOAA's current and future mission and operations in the Pacific Region are estimated at more than $265 million. This is substantially more than preliminary estimates for the projected cost of the Pacific Region Center.

Question. What is the position of the Department of Commerce on the consolidated NOAA facility in Hawaii? Please explain the Department's rationale.

Answer. The Department of Commerce supports the development of a NOAA Pacific Region Center on Ford Island, and appreciates the support the Senator and his staff have provided to NOAA over the past several years in working towards this objective. NOAA's programs in the Pacific Region are diverse and geographically wide-ranging. They affect not just Hawaii, but also the larger Pacific Region. By bringing its programs together into one facility, NOAA expects to realize benefits in improved operations and mission performance, as well as longer-term operational savings, including the following:

—Create greater focus and attention to the vital role that NOAA's programs play in understanding and predicting the Pacific Region's climate;
—Improve the agency's ability to protect the environment and enhance the sustainability of Pacific Basin resources;
—Provide greater synergy and integration across NOAA in delivering its products and services in the Pacific Region;
—Advance its mission and promote community development through its outreach efforts, cooperative relationships with educational institutions, and growth of internship programs;
—Achieve operational efficiencies and control program expenditures by locating NOAA facilities and services in a common location on existing U.S. government property.

QUESTIONS SUBMITTED BY SENATOR TIM JOHNSON

BASE REALIGNMENT AND CLOSURE (BRAC)

Question. On May 13 of this year, the Department of Defense (DOD) released its recommendations for realignment or closure of U.S. military bases. These recommendations will now be considered by the Base Realignment and Closure (BRAC) Commission. A revised list of recommendations will likely be considered by the President and Congress. Base closures, particularly in rural states like mine, can have devastating effects on local and regional economies. To mitigate these effects, several federal agencies offer grants and technical assistance to communities forced to cope with a base closure. In the four previous BRAC rounds, the Economic Development Administration (EDA) has been one of the largest, if not the single largest, sources of funding for BRAC-affected communities. The Administration's deep proposed cuts to community development programs including EDA would be of great concern to me under any circumstances. These cuts look even more inadvisable this year, however, in light of the fact that the current BRAC round will generate a significant increase in demand for EDA's assistance. Given that other forms of federal assistance have not grown to accommodate this increased demand, would you please indicate whether EDA has established a plan for ensuring that the needs of BRAC affected communities are met? If EDA has established such a plan, please characterize it. If EDA has not established such a plan, please justify the Administration's willingness to provide less assistance for communities affected by its base closure and realignment decisions.

Answer. EDA continues to be an active participant in national Base Realignment and Closure (BRAC) activities, including working with the bureau's federal partners to coordinate assistance to address the forthcoming BRAC recommendations. In fact, pursuant to Executive Order 12788, entitled Defense Economic Adjustment Program, as amended by President George W. Bush on May 12, 2005, the Secretary of Commerce serves as co-vice chair of the President's Economic Adjustment Committee (EAC), the role of which is to coordinate assistance across the federal government in support of forthcoming base closure and realignment decisions.

Furthermore, EDA has an existing Memorandum of Agreement (MOA) with the Department of Defense's Office of Economic Adjustment (OEA) "to facilitate the award and administration of grant and cooperative agreement activities and to promote consultation between the agencies" on base realignment and closure issues. Pursuant to this agreement, OEA transfers funds to EDA to assist with economic

adjustment projects on former military installations including grants for infrastructure improvements to facilitate the reuse of former military bases.

Finally, when the President's Strengthening America's Communities initiative (SACI) is implemented and its administrative structure established, it is anticipated that the Department, under the auspices of a new bureau, will retain its authority and maintain its historic role assisting BRAC-impacted communities under soon-to-be proposed SACI legislation designed to, among other things, respond to economic adjustment problems. Under the anticipated framework for SACI, a base closing might cause a sudden and severe economic event that could trigger eligibility as a result of the economic dislocation caused by the closure.

STRENGTHENING AMERICA'S COMMUNITIES INITIATIVE

Question. Part of the Administration's justification for reorganizing community development grant programs as part of the Strengthening America's Communities (SAC) initiative is its assertion that federal funds are not always directed to the neediest communities. Yet the Administration also touts the merits of the block grant method of distributing federal funds, whereby state and local officials decide how such funds should be allocated. They are presumed to understand local needs and priorities more comprehensively than federal officials. These two positions appear to be incompatible—the Administration's critique of how community development funds have been distributed seems to contradict its belief in the wisdom of local officials. Could you please explain this apparent contradiction?

Answer. The Administration strongly supports the block grant method of distributing federal funds as an effective mechanism to target taxpayer dollars to address locally established needs and priorities. The Administration notes, however, that existing federal block grant programs, such as the Community Development Block Grant (CDBG) and Community Services Block Grant (CSBG) programs, were developed to address the community and economic development challenges of another era and are no longer achieving their intended purpose of aiding the nation's neediest communities.

The Administration strongly believes that funding should be targeted to those communities most in need. For example, the CDBG program was created to serve distressed communities, but currently allocates 38 percent of its funds to communities (including both entitlement communities and the State portion) with below average poverty rates. The President's Strengthening America's Communities initiative (SACI) will address this deficiency by designing a new program targeted exclusively to the nation's most economically distressed communities.

The SACI represents a shift in federal community and economic development policy. The President and his Administration believe first and foremost that direct federal grants in local development efforts should be easy to access, flexible to use, and targeted directly to the most-distressed communities with an expectation of achieving results.

In focusing on results, accountability for the use of taxpayer dollars will be a critical component of SACI. In exchange for the flexible use of funds at the local level, recipients will be expected to achieve, and be held accountable for results. This initiative represents a new approach to economic and community development assistance by placing the focus on long-term outcomes that demonstrate improvement toward community self-sufficiency. Communities will be required to show that they have made progress toward locally selected goals for development (such as job creation, homeownership, and commercial development) in return for being able to determine how best to spend federal dollars to meet those outcomes.

Question. A February 2005 overview booklet about the SAC initiative contains a Frequently Asked Questions (FAQ) section which includes the following question. "Isn't [the SAC initiative] really just a disguise for cutting funding?" The pamphlet goes on to explain that despite the initiative's proposed cuts, community development efforts would be improved by the initiative's reforms. To my knowledge, though, the Administration has not released any analysis to indicate the harm of reducing community development funding will be more than offset by gains from reorganizing the programs. Has the Administration conducted any analysis to indicate whether the SAC initiative is net-beneficial? If so, please share this analysis with me and other members of the Appropriations Committee. In the absence of such analysis, how does the Administration justify its claim that the SAC is something other than "a disguise for cutting funding"?

Answer. When the Strengthening America's Communities initiative (SACI) is implemented, the Administration anticipates that there will be administrative savings from reducing the number of programs that communities must work with from 18 to 1. These savings will occur at the federal, as well as state and local levels where

redundant staffing and administrative structures can be eliminated. To date, the Administration has not conducted an analysis that quantifies the administrative savings at the federal level, and it would be virtually impossible to quantify the enormous benefits that would accrue by eliminating redundancy at the state and local levels.

In addition to the anticipated administrative savings, the goal of the consolidation is to provide a more streamlined delivery system resulting in better service and reduced upfront costs for the communities receiving assistance. An important principle behind the SACI is to avoid the need for communities, especially rural and economically distressed communities with limited resources, to have to expend those valuable resources coordinating a vast array of similar domestic community and economic development programs.

These concerns about the status quo mirror the growing consensus among the nation's leading economists and economic development researchers and practitioners that because of the fragmented, unfocused, and duplicative nature of the programs, there is a need to fundamentally rethink and refocus the federal role in support of state and community efforts to promote economic growth and spur job creation in the 21st century economy. For example, one GAO report noted that the fragmentation and excessive bureaucracy make it difficult for communities to obtain assistance and "limit the development of critical knowledge [and] hinder organizations and partnerships." [1] The Administration's new proposed grant program would significantly improve the coordination of resources at the local level by streamlining federal resources.

The recently issued report of the SACI Secretarial Advisory Committee reinforces these findings. The report's overarching premise is that globalization has fundamentally changed the American economy, and that the economic health of our nation is now dependent upon the competitiveness of its regions. Despite these economic changes, our nation continues with policies, organizational structures, and investment strategies built for a past era. Therefore, it is necessary to build a new system of federal economic and community development that invests in the strengthening of regions and their communities. The report emphasizes the need to better target federal resources to communities and regions of high distress.

On the whole, it is anticipated that SACI's new allocation formula will direct more funds to the neediest places. The President's initiative will focus resources on the nation's most economically distressed communities. By focusing on communities most in need, fewer communities may be funded, but they will be funded under an allocation methodology that allows them to receive increased funding along with more flexibility, more control and more focus on activities that drive their local economy or make their communities more livable.

In addition, the President's proposal is more equitable in that it will streamline access to federal assistance by providing a single access point for all communities. By targeting funds on the basis of need, we can direct funding to the communities that are most deserving regardless of whether they are urban, exurban, suburban, or rural.

CONCLUSION OF HEARINGS

Senator SHELBY. Thank you very much. The subcommittee is recessed.

[Whereupon, at 3:20 p.m., Thursday, May 26, the hearings were concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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[1] U.S. General Accounting Office, "Community Development: Challenges Face Comprehensive Approaches to Address Needs of Distressed Neighborhoods," GAO/T–RECD–95–160BR, April 13, 1995.

COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2006

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[The following testimonies were received by the Subcommittee on Commerce, Justice, Science, and Related Agencies for inclusion in the record. The submitted materials relate to the fiscal year 2006 budget request for programs within the subcommittee's jurisdiction.]

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR MICROBIOLOGY

The American Society for Microbiology (ASM) appreciates the opportunity to submit testimony on the fiscal year 2006 appropriation for the National Science Foundation (NSF). The ASM is the largest single life science organization in the world with more than 43,000 members. The ASM mission is to enhance the science of microbiology, to gain a better understanding of life processes, and to promote the application of this knowledge for improved health and for economic and environmental well-being.

The NSF is the premier source of Federal support for scientific, mathematic, and engineering research and education across many disciplines. NSF plays a critical role in supporting the health of the Nation's research and education system, which is a principal source of new ideas and human resources in science and engineering. Although NSF represents less than 4 percent of the total Federal funding for research and development, it accounts for approximately 13 percent of all Federal support for basic research and 40 percent of non-life-science basic research at U.S. academic institutions. NSF's broad support for basic research, particularly at U.S. academic institutions, provides not only a key source of funds for discovery in many fields, but also unique stewardship in developing the next generation of scientists and engineers. NSF is also the primary Federal agency charged with promoting science and engineering education at all levels and in all settings, from pre-kindergarten through career development. This educational effort helps to ensure that the United States has world-class scientists, mathematicians, and engineers, as well as, educated and prepared citizens.

ASM appreciates the support that both the Congress and the administration have demonstrated for the National Science Foundation through enactment of the NSF Authorization Act of 2002 (Public Law 107–368). Public Law 107–368 authorizes a 5-year period of 15 percent annual budget increases for the NSF. Recognizing the current fiscal climate, we encourage Congress to increase the funding for NSF in fiscal year 2006 to $6 billion, approximately 6 percent above the fiscal year 2004 funding level and 9 percent over fiscal year 2005. Increasing NSF"s budget to $6 billion will allow for additional investments in grants, fellowships, and in crosscutting research priorities such as Microbial Biology, Nanoscale Science and Engineering, the National Ecological Observatory Network (NEON), and meet biological infrastructure needs.

RESEARCH GRANT FUNDING

Fundamental research in the biosciences has laid the foundation for exploring the human genome and now offers new possibilities for understanding the living world from molecules to organisms to ecosystems, providing discoveries applicable to meeting national health, environmental, agricultural, and energy needs. The fiscal year 2006 budget request for NSF is $5.61 billion, a 2.4 percent or $132 million increase over fiscal year 2005. However, because NSF received a 3.1 percent cut in fiscal year 2005, the overall request for fiscal year 2006 would still fall approximately 1 percent below the fiscal year 2004 level. Moreover, because NSF is being asked to pay for the upkeep of ships used for icebreaking, an expense that formerly was borne by the Coast Guard, the net increase for agency programs in fiscal year 2006 amounts to only 1.5 percent.

The success rate for grant proposals submitted to NSF has dropped from a level of about 33 percent to below 20 percent, while the number of proposals submitted to the agency has increased to more than 45,000 per year. The projected number of grants funded for fiscal year 2006 is expected to remain steady, while the average annual award size will also remain level at an estimated $137,000. Increasing NSF's budget to $6 billion would allow NSF to increase the size of individual awards and also the number of grants awarded.

The NSF Directorate for Biological Sciences (BIO) provides support for research that advances understanding of the underlying principles and mechanisms governing life. The fiscal year 2006 budget request for the BIO directorate is $581.8 million, an increase of 0.9 percent over the fiscal year 2005 level. Research programs range from the study of the structure and dynamics of biological molecules, such as proteins and nucleic acids, through cells, organs, and intact organisms to studies of populations and ecosystems. It encompasses processes that are internal to particular organisms as well as those that are external, and includes temporal frameworks ranging from immediate measurements through life spans of mere minutes for some microorganisms to the full scope of evolutionary time. Within the BIO and other Directorates at the NSF, programs and priorities of particular interest to the ASM include:

MOLECULAR AND CELLULAR BIOSCIENCES

The Molecular and Cellular Biosciences (MCB) Division within NSF included several research activities in microbiology that are being transferred to the Emerging Frontiers Subactivity for a new emphasis in Microbial Biology in fiscal year 2006. The request for MCB core research for fiscal year 2006 is $109.8 million, which is a decrease of $8.4 million from fiscal year 2005. Although some of this decrease is due to activities being transferred, overall decreases in core funding will lead to fewer MCB awards in fiscal year 2006.

BIOCOMPLEXITY IN THE ENVIRONMENT

The fiscal year 2006 budget request for Biocomplexity in the Environment (BE) is for $30.43 million, which is nearly a 24 percent decrease from the previous level. This priority area provides support for the Ecology of Infectious Disease, Microbial Genome Sequencing, and Assembling the Tree of Life programs, and will help to support a new program emphasizing environmental genomics in fiscal year 2006, each of which will be managed under the Emerging Frontiers Subactivity. This effort to expand multidisciplinary research will result in our developing a more complete understanding of natural processes and better ways to use new technology effectively to sustain life on earth. Increasing NSF's budget would allow NSF to increase its investment in the BE effort.

NANOSCALE SCIENCE AND ENGINEERING

The Nanoscale Science and Engineering effort within the BIO Directorate faces a decrease of $2 million, or 34 percent, to a total of $3.85 million for fiscal year 2006. This effort encompasses the systematic organization, manipulation, and control of matter at the atomic, molecular, and supramolecular levels. With the capacity to manipulate matter at the nanometer scale (one-billionth of a meter), science, engineering, and technology are realizing revolutionary advances in areas, such as, individualized pharmaceuticals, new drug delivery systems, more resilient materials and fabrics, catalysts for industry, and computer chips. NSF has been a pioneer among Federal agencies in fostering the development of nanoscale science. The President's request of $127.8 million in fiscal year 2006 for the overall Nanoscale Science and Engineering effort remains unchanged from the fiscal year 2005 plan.

DIVISION OF ENVIRONMENTAL BIOLOGY

The budget request for the Division of Environmental Biology (DEB) for fiscal year 2006 is $107.1 million, an increase of about 1.1 percent over the fiscal year 2005 plan. DEB priorities for fiscal year 2006 are to support research on complex ecological systems, including aquatic or watershed systems, systematic biology, microbial ecology, and invasive species, with particular emphasis on the quantitative understanding of complex interrelationships. These efforts will depend on biological infrastructure such as advanced instrumentation and research collections. Also within DEB, the National Center for Ecological Analysis and Synthesis budget is to be increased by $350,000.

BIOLOGICAL INFRASTRUCTURE

The budget request for the Division of Biological Infrastructure for fiscal year 2006 is for $82.9 million, an increase of about 2.9 percent over the fiscal year 2005 plan. The fiscal year 2006 budget request for the National Ecological Observatory Network (NEON) within this program is for $6 million, which is less than a 1 percent increase from the previous year and is allocated for planning this program. NEON has the potential to transform ecological research. The program calls for developing a continental-scale research instrument consisting of geographically distributed infrastructure that will be networked via state-of-the-art communications to obtain a predictive understanding of the Nation's environment. A very large number of scientists, students, resource managers, and decision makers could make use of NEON data, both directly and indirectly, through the network capabilities and the Internet. Increasing NSF's budget to $6 billion would allow NSF to increase its investment in NEON.

EMERGING FRONTIERS

The budget request for the Emerging Frontiers (EF) Subactivity for fiscal year 2006 is for $85.9 million, an increase of about 16 percent over the fiscal year 2005 plan. This increase is partly the result of several programs being transferred from the Division of Molecular and Cellular Biosciences, including programs that support microbial genome sequencing, microbial observatories, research on interactions and processes, and training activities. The EF Subactivity includes a priority in Microbial Biology for fiscal year 2006, emphasizing all levels from the molecular to the ecological. Several programs are being transferred from the Division of Molecular and Cellular Biosciences, including programs that support microbial genome sequencing, microbial observatories, research on interactions and processes, and training activities.

The Microbial Genome Sequencing Program is to be conducted jointly with a competitive grants program in the U.S. Department of Agriculture. The fiscal year 2006 funding request is for $12.2 million for the Microbial Observatories and Microbial Interactions and Processes Program to support researchers who are analyzing microbial genomic sequence and other data.

The Ecology of Infectious Diseases is an interagency partnership with the National Institutes of Health to support the development of predictive models and discovery of principles for relationships between environmental factors and transmission of infectious agents. Potential benefits include the development of disease transmission models, understanding unintended health effects of environmental change, and improved prediction of disease outbreaks, including the emergence or reemergence of disease agents. Examples of environmental factors include habitat transformation, biological invasion, biodiversity loss, and contamination.

BIOENGINEERING AND ENVIRONMENTAL SYSTEMS

The Bioengineering and Environmental Systems (BES) Division, within the Engineering Directorate, supports research that: expands the knowledge base of bioengineering at scales ranging from proteins and cells to organ systems, including mathematical models, devices and instrumentation systems; applies engineering principles to the understanding of living systems, development of new and improved devices, and products for human health care; improves our ability to apply engineering principles to avoid and/or correct problems that impair the usefulness of land, air and water, and advances fundamental engineering knowledge of the ocean environment and develops technological innovation related to conservation, development, and use of the oceans and their resources.

In fiscal year 2004, BES was funded at $51 million, in fiscal year 2005, it was funded at $48.2 million. The budget request for BES in fiscal year 2006 is $50.7 million, 0.6 percent below fiscal year 2004. BES plays a vital role in supporting re-

search, innovation, and education in the rapidly evolving fields of bioengineering and environmental engineering. Increasing NSF's budget to $6 billion would allow NSF to increase its investment in BES, supporting technological innovations that will advance the global competitiveness of our industries and the health of our environment.

CONCLUSION

In addition to adverse impacts on the pace of new scientific discoveries, constrained funding has equally important consequences for the vitality of the Nation's scientific workforce. Constrained funding decreases job opportunities for current and future scientists, and reduces the attractiveness of science as a career choice.

The NSF plays a key role in support of basic science and scientists in the United States, and knowledge gained from NSF studies directly benefits industry and contributes to the economy and U.S. international competitiveness. The NSF is in a singular position among all the Federal research and development agencies to support fundamental research in a wide range of important areas, including microbiology and molecular biology. ASM urges Congress to protect ongoing and future U.S. scientific and technological advancements by supporting an increase to $6 billion for the fiscal year 2006 budget for the NSF. The ASM believes NSF should continue to emphasize fundamental, investigator-initiated research, research training, and science education as its highest priorities.

The ASM appreciates the opportunity to provide written testimony and would be pleased to assist the subcommittee as it considers its appropriation for NSF for fiscal year 2006.

JOINT PREPARED STATEMENT OF THE ASSOCIATION OF NATIONAL ESTUARY PROGRAMS; THE COASTAL STATES ORGANIZATION; THE CONSERVATION FUND; THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES; THE LAND TRUST ALLIANCE; THE NATIONAL ESTUARINE RESEARCH RESERVE ASSOCIATION; THE NATURE CONSERVANCY; AND THE TRUST FOR PUBLIC LAND

On behalf of the organizations listed below, we would like to thank you for your long-standing support of coastal zone management and coastal land conservation. We are writing today in support of the Coastal and Estuarine Land Conservation Program. This subcommittee created CELCP in fiscal year 2002 in order to "protect those coastal and estuarine areas with significant conservation, recreation, ecological, historical or aesthetic values, or that are threatened by conversion from their natural or recreational states to other uses." Thus far, this program has invested nearly $145 million towards 90 conservation projects in 23 States. All Federal funding has been leveraged by at least an equal amount at the local level. We hope to continue this Federal-State partnership and encourage you to fund CELCP at $60 million for fiscal year 2006.

Our Nation's coastal zone is under significant pressures from unplanned development. In fact, it is estimated that by 2025, nearly 75 percent of the Nation's population will live within 50 miles of the coast, in addition to millions more who enjoy America's storied coastlines. From Maine to Washington State, beaches and waterfronts have always been the destination of choice for Americans. Billions of dollars of the Nation's GDP are generated by coast-based economic activities, inexorably linking our coastal zone with the economic health of the Nation.

As a result of this economic boom, rapid, unplanned development has marred the once-pristine viewsheds and substantially reduced public access to the coast. The resulting increase in impervious surfaces has correspondingly increased non-point source pollution and seriously degraded coastal and estuarine waters. The loss of coastal wetlands has drastically impaired estuaries, some of the most productive habitat on earth. The U.S. Commission on Ocean Policy has also stressed the importance of land conservation as part of its broader recommendations to Congress and the Nation.

From our work at the local level, we know from first-hand experience that this program will significantly leverage ongoing community-based conservation, and will provide a much needed boost to local efforts. Given the importance of healthy, productive and accessible coastal areas, a Federal commitment to State and local coastal protection is a sound investment.

We urge you to fund the Coastal and Estuarine Land Conservation Program at $60 million in fiscal year 2006. We look forward to working with you as this program evolves, and stand ready to assist you.

PREPARED STATEMENT OF THE AMERICAN GEOLOGICAL INSTITUTE

To the Chairman and members of the subcommittee, the American Geological Institute (AGI) supports fundamental Earth science research sustained by the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), the National Institute of Standards and Technology (NIST) and the National Aeronautics and Space Administration (NASA). This frontier research has fueled economic growth, mitigated losses and sustained our quality of life. The subcommittee's leadership in expanding the Federal investment in basic research is even more critical as our Nation competes with rapidly developing countries, such as China and India, for energy, mineral, air and water resources. Our nation needs skilled geoscientists to help explore, assess and develop Earth's resources in a strategic, sustainable, economic and environmentally-sound manner. AGI supports full funding as authorized for NSF's EarthScope project and Research and Related Activities; full funding for NOAA's Tsunami Warning Network; authorized support for NIST's and NSF's responsibilities in the National Earthquake Hazards Reduction Program (NEHRP) and continued support for NASA's Earth observing campaigns.

AGI supports the Coalition for National Science Funding, which encourages increases in total funding for NSF and the NEHRP Coalition, which encourages full funding for NEHRP within NSF and NIST. In addition, AGI supports funding for Earth science education through NSF's Math and Science Partnership (MSP) program. Earth science education helped to save lives during the tragic Indian Ocean tsunami and will be important for future hazard mitigation in the United States and elsewhere.

AGI is a nonprofit federation of 42 geoscientific and professional societies representing more than 100,000 geologists, geophysicists, and other Earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice for shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources and interaction with the environment.

NSF

We applaud the NSF's emphasis on funding the long-neglected and critically underfunded physical sciences and hope that the subcommittee shares this commitment to the physical sciences, including the geosciences. Enhanced and essential funding should remain broad enough to ensure the multidisciplinary nature of today's science, mathematics, engineering, and technology research. Congress wisely authorized increased funding for NSF in Public Law 107–368, such that the total NSF budget would increase to $7.378 billion and the Research and Related Activities budget would grow to $5.543 billion in 2005. NSF only received $5.473 billion in 2005 and remains underfunded. AGI would strongly support an increase of NSF's total budget to $6 billion in fiscal year 2006 and we believe that such a wise and forward-looking investment in tight fiscal times will pay important dividends in future development and innovation that drives economic growth.

NSF Geosciences Directorate.—The Geosciences Directorate is the principal source of Federal support for academic Earth scientists and their students who are seeking to understand the processes that ultimately sustain and transform life on this planet. The President's budget proposal requests a small increase of 2.2 percent ($14.9 million) for a total budget of $709.1 million. Within this directorate the Earth Sciences Division's budget would increase 3.4 percent or $5.1 million from $149.0 million to $154.1 million. AGI fully supports this increase to fund EarthScope's operation and maintenance budget. We would encourage increases in funding to the authorized level for the Research and Related Activities account, to allow NSF to strengthen core research by increasing the number and duration of grants. The NEHRP Coalition also requests that Congress appropriate the full funding level contained in the reauthorization for fiscal year 2006 of $39.1 million dollars for NEHRP responsibilities at the NSF.

NSF Major Research Equipment Account.—EarthScope AGI urges the subcommittee to support the Major Research Equipment, Facilities and Construction budget request of $50.62 million for EarthScope. Taking advantage of new technology in sensors and data distribution, this multi-pronged initiative will systematically survey the structure of Earth's crust beneath North America, imaging faults at depth, hidden faults and other structures that may be hazardous or economically-valuable. The fiscal year 2006 request includes continued support for deployment of three components: a dense array of digital seismometers that will be deployed in stages across the country; a 4-km deep borehole through the San Andreas Fault, housing a variety of instruments that can continuously monitor the conditions within the fault zone; and a network of state-of-the-art Global Positioning System (GPS)

stations and sensitive strain meters to measure the deformation of the constantly shifting boundary between the Pacific and North American tectonic plates in an area susceptible to large earthquakes and tsunamis.

EarthScope has very broad support from the Earth science community and received a very favorable review from the National Research Council, which released a report in 2001 entitled "Review of EarthScope Integrated Science". All data from this project will be available in real time to both scientists and students, providing a tremendous opportunity for both research and learning about Earth. Involving the public in Earth science research will increase appreciation of how such research can lead to improvements in understanding the environment, utilizing natural resources and mitigating natural hazards. EarthScope can also provide a mechanism to integrate a broad array of Earth science research data in a unified system to promote cross-disciplinary research and avoid duplication of effort.

NSF Support for Earth Science Education.—Congress can improve the Nation's scientific literacy by supporting the full integration of Earth science information into mainstream science education at the K–12 and college levels. AGI strongly supports the Math and Science Partnership (MSP) program as it has existed at NSF. This is a competitive peer-reviewed grant program and funds are only awarded to the highest quality proposals. Shifting the MSP program entirely to the Department of Education would mean that all MSP funds would be distributed to states on a formula basis. This would provide no incentive for top researchers to continue to participate in this important program and would limit the flexibility of States to target areas of greatest need. The NSF's MSP program focuses on modeling, testing and identification of high-quality math-science activities whereas the Department of Education program does not. The NSF and Department of Education MSP programs are complementary and are both necessary to continue to reach the common goal of providing world-class science and mathematics education to elementary and secondary school students. AGI opposes the transfer of the MSP from NSF to the Department of Education.

Improving geoscience education to levels of recognition similar to other scientific disciplines is important because:

—Geoscience offers students subject matter that has direct application to their lives and the world around them, including energy, minerals, and water.

—Geoscience exposes students to a diverse range of interrelated scientific disciplines. It is an excellent vehicle for integrating the theories and methods of chemistry, physics, biology, and mathematics.

—Geoscience awareness is a key element in reducing the impact of natural hazards on citizens—hazards that include earthquakes, volcanic eruptions, hurricanes, tornadoes, and floods. For example, lives were saved in the tragic Indian Ocean tsunami by a 12-year-old girl who understood the warning signs of an approaching tsunami because of her Earth science class and warned others to seek higher ground.

—Geoscience provides the foundation for tomorrow's leaders in research, education, utilization and policy making for Earth's resources and our Nation's strategic, economic, sustainable and environmentally-sound natural resources development.

NOAA

Within NOAA's National Weather Service, some of the proposed increases are for improving the U.S. Tsunami Warning Network. President Bush requested $24 million over 2 fiscal years ($14.5 million in fiscal year 2005 and $9.5 million in fiscal year 2006) to add 32 detection buoys (7 for the Atlantic Ocean, Caribbean Basin and Gulf of Mexico and 25 for the Pacific Ocean), procure 38 new sea level monitoring/tide gauge stations, and to provide comprehensive warning coverage. AGI supports full funding for this program. AGI also supports the proposed increased funding for the development of the geostationary operational environmental satellite (GOES–R) and the National Polar-Orbiting Operational Environmental Satellite System (NPOESS). Both satellite systems will maintain a global view of the planet to continuously watch for atmospheric triggers of severe weather conditions such as tornadoes, flash floods, hailstorms, and hurricanes.

NIST

In 2004 President Bush signed the National Earthquake Hazards Reduction Program (NEHRP) reauthorization (Public Law 108–360). This legislation reauthorized NEHRP for another 5 years and authorized $176.5 million in spending spread over four agencies (NIST, FEMA, USGS and NSF). As the lead agency, the law says NIST is eligible to receive up to $11 million for NEHRP in fiscal year 2006. No

funds were requested for this program in the President's fiscal year 2006 budget. AGI strongly supports $11 million for NIST to carry out its NEHRP responsibilities and we further support adequate funding for core laboratory functions at NIST to ensure that NEHRP funds are protected.

NASA

AGI supports the Earth observing programs within NASA. NASA has a unique capability to provide observations of our planet. Currently the topography of Mars has been measured at a more comprehensive and higher resolution than Earth's surface. While AGI is excited about space exploration and values aeronautics research to help build better aircraft, we firmly believe that NASA's Earth observing program is effective and vital to solving global to regional puzzles about Earth systems, such as how much and at what rate is the climate changing. Among Earth science programs, the Earth Systematic Missions program is slated for a $118 million (40 percent) cut, stalling the Glory Mission, which was planned to address climate change. We hope this subcommittee will be committed to full funding of the Earth Systematic Missions program.

I appreciate this opportunity to provide testimony to the subcommittee and would be pleased to answer any questions or to provide additional information for the record.

Prepared Statement of the American Public Power Association

The American Public Power Association (APPA) is the national service organization representing the interests of over 2,000 municipal and other State and locally owned utilities in 49 of the 50 States (all but Hawaii). Collectively, public power utilities deliver electricity to one of every seven electric consumers (approximately 43 million people), serving some of the Nation's largest cities. However, the vast majority of APPA's members serve communities with populations of 10,000 people or less.

The Department of Justice's Antitrust Division (DOJ) and the Federal Trade Commission (FTC) play critical roles in monitoring and enforcing antitrust laws affecting the electric utility industry. With the continuing uncertainty created by wholesale electricity restructuring, this oversight is more crucial than ever.

APPA supports adequate funding for staffing antitrust enforcement and oversight at the FTC and DOJ. Specifically, we support the administration's request of $212 million for fiscal year 2006 for the FTC. However, we urge the subcommittee to carefully consider allocating the full $144.5 million requested by the administration for fiscal year 2006 to provide the U.S. Antitrust Division with the necessary resources to enforce U.S. antitrust laws to help APPA's members adapt to the ever changing wholesale electricity market.

We appreciate the opportunity to submit this statement outlining our fiscal year 2006 funding priorities within the Commerce-Justice-Science Subcommittee's jurisdiction.

Prepared Statement of Oceana

Chairman Shelby, Ranking Member Mikulski and other subcommittee members, on behalf of the more than 250,000 supporters of Oceana, an international, non-profit conservation organization devoted to protecting ocean waters and wildlife, I submit the following testimony on the fiscal year 2006 budget for the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce. I request that this testimony be submitted for the official record. Oceana urges the subcommittee, as it has done in previous years, to significantly increase funding for NOAA overall and specifically recommends the following for critical ocean research and conservation programs:

—$42.4 million for fishery observer programs;
—$4.8 million for the reducing bycatch initiative;
—$12.5 million for the national undersea research program (NURP);
—$82.0 million for marine mammal research and management;
—$15.0 million for sea turtle research and management;
—$30.0 million for expanding fish stock assessments;
—$20.0 million for fishery cooperative research;
—$54.2 million for fishery enforcement, including $9.3 million for vessel monitoring systems; and

—$8.0 million for National Environmental Policy Act activities in fishery management.

We are greatly concerned about the impact of the administration's request for a $333 million cut (−8.5 percent) to NOAA below existing funding levels. The National Marine Fisheries Service is targeted for a $95 million cut (−12.0 percent) and the National Ocean Service is targeted for a $255 million cut (−38.0 percent). These steep reductions do not match the recommendations of the Presidentially-appointed United States Commission on Ocean Policy's final report issued last fall. The Commission emphasized the importance of taking immediate action to conserve ocean and coastal waters, wildlife, and habitats and called for substantial increases in our Nation's investments for ocean research, conservation, and management. We hope you will follow the Commission's advice and strengthen our Nation's commitment to sustainable oceans and coasts by increasing funding for the important NOAA programs and activities described below.

Fishery Observer Programs—$42.4 million.—Oceana recommends that the fiscal year 2006 budget provide $42.4 million for more effective national and regional observer programs. The information gathered by observers helps track how many fish, marine mammals, sea turtles, sea birds, and other ocean wildlife are caught directly and as bycatch, thereby improving management of our fish populations. According to NMFS, observers are currently deployed to collect fishery dependent data in less than 40 of the Nation's 300 fisheries. Existing coverage levels for many of the fisheries with observers are inadequate. In its final report, the U.S. Commission on Ocean Policy concluded that "accurate, reliable science is critical to the successful management of fisheries" and endorsed the use of observers as key to bycatch reduction efforts. More specifically, Oceana recommends $9.0 million for the national observer program; $11.0 million for the New England groundfish observer program; $7.8 million for the Atlantic Coast observer program; $2.0 million to establish a Gulf of Mexico/South Atlantic reef fish observer program; $350,000 for the East Coast observer program; $3.979 million for Hawaii longline observer program; $1.835 million for North Pacific marine resources observer program; $650,000 for North Pacific observer program; $800,000 for the South Atlantic/Gulf of Mexico shrimp observer program; and $5.0 million for the West Coast groundfish observer program. The administration's request seeks slightly more than the current funding level of $24.5 million.

Bycatch Reduction—$4.8 million.—One of the primary issues threatening the future of our fisheries is the catch and subsequent injury or death or unwanted fish and ocean life. For the past few years, Congress has provided additional Federal support to help address the challenges of bycatch. This initiative supports enhanced technical solutions and outreach to reduce bycatch, improved cooperative research activities with fishermen, and international transfer of technology, gear modifications, and fishing practices that benefit domestic fisheries that target highly migratory fish species. We would strongly encourage the subcommittee to consider funding this new initiative at $4.8 million to accelerate bycatch reduction efforts. Current funding for this initiative is $3.745 million.

National Undersea Research Program—$12.5 million.—Oceana supports a slight increase above current enacted levels for NOAA's National Undersea Research Program. This program can help managers locate and map areas of ancient, deep sea corals and other vital undersea habitats that are important for healthy fish and marine mammal populations.

Marine Mammal Protection—$82.0 million.—Oceana recommends sustaining the level of funding provided to support marine mammal research and management activities in the fiscal year 2005 budget ($82.0 million). These funds will help the National Marine Fisheries Service more fully assess and adopt measures to recover depleted and strategic marine mammal species, such as bottlenose dolphins, pilot whales, and common dolphins. It will also help the agency improve the knowledge of marine mammal populations; currently, the status of more than 200 protected and at-risk marine species is unknown. Activities that will be supported by these funds include funding top priority studies identified by the take reduction teams; designing and implementing take reduction plans for certain depleted marine mammal populations; conducting research on population trends; working on recovery plans; and conducting critical research on health and respond to marine mammal die-offs.

Sea Turtle Conservation—$15.0 million.—Oceana urges the subcommittee to sustain work currently underway on sea turtle research and conservation by providing $15.0 million to NMFS programs dedicated to protecting sea turtles. Current funding levels for sea turtle work are $14.943 million. All sea turtles found in U.S. waters are officially protected as endangered or threatened. Additional funding will enhance research, recovery, and protection activities for imperiled sea turtle species.

We also encourage additional funding to support the agency's Atlantic sea turtle bycatch reduction strategy that will examine needed gear modifications for conservation.

Expanding Stock Assessments of our Nation's Fisheries—$30.0 million.—Due to a lack of funding for basic research, we do not have adequate information about the status of many commercial fish stocks. Almost two-thirds of the Nation's fish populations lack basic information to determine their status; there are 85 "major" stocks where the information about their status is classified as "unknown." Oceana encourages the subcommittee to provide $30.0 million so that NMFS can hire additional biologists to produce annual stock assessments, fund necessary charter days at sea to collect data, and ultimately significantly reduce the number of fish stocks with unknown status. Accelerating this information gathering will help rebuild overfished stocks and improve fish management decisions. Current funding levels for fish stock assessment are $20.5 million.

Fishery Cooperative Research—$20.0 million.—Oceana recommends the subcommittee provide $20.0 million to support research partnerships between NMFS, scientists, and individual fishermen. Current funding levels for this research are $19.173 million.

Fishery Enforcement—$54.2 million.—Oceana strongly supports the administration's request of $54.2 million for fishery enforcement, which includes $9.3 million for the Vessel Monitoring System (VMS). This increase supports expansion of VMS, which helps to improve monitoring and enforcement of areas closed for protection of endangered species, critical habitat, and rebuilding sustainable fisheries.

National Environmental Policy Act (NEPA) Implementation—$8.0 million.—Oceana supports the administration's request of $8.0 million to enhance NMFS work in satisfying NEPA requirements. These funds will support NEPA specialists within the agency and in the eight regional fishery management councils and will help build the analytical capability needed to move toward ecosystem-based approaches to management.

Thank you for your consideration of these recommendations.

Prepared Statement of the National Fish and Wildlife Foundation

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to submit testimony for the record regarding the fiscal year 2006 funding request for the National Fish and Wildlife Foundation (Foundation). The Foundation respectfully requests that this subcommittee fund the Foundation at $4 million ($2 million from both National Ocean Services and National Marine Fisheries Services) through the National Oceanic and Atmospheric Administration (NOAA) appropriation. This request would allow the Foundation as the official Foundation to NOAA to continue to leverage scarce Federal dollars and expand its highly successful grant program to better assist NOAA in forwarding their mission for coastal and marine conservation, as well as species recovery. This request lies well within the authorized amount for the Foundation.

Federal dollars appropriated by this subcommittee allow us to leverage State, local, and private dollars for on-the-ground conservation. Since our founding in 1984, the Foundation has supported over 7,273 conservation grants and leveraged over $305.1 million in Federal funds into more than $918.8 million for on the ground conservation. This has resulted in more than 17.4 million acres of restored and managed wildlife habitat; new hope for countless species under stress; new models of private land stewardship; and, stronger conservation education programs in schools and local communities. We recognize that without the seed money this committee provides, many conservation benefits would not be realized. None of our federally appropriated funds are used for lobbying or litigation, or for the Foundation's administrative expenses. All of our federally appropriated funds go to on-the-ground projects. Furthermore, our general administrative expenses, including fundraising, public relations, and finance and administration is below 8 percent.

In 1999, Congress expanded the Foundation's mandate to expressly include the National Oceanic and Atmospheric Administration (NOAA) and its mission. For nearly a decade, NOAA and the Foundation have jointly supported projects in marine conservation through public-private partnerships. By the end of fiscal year 2004, over $34 million in NOAA and Foundation funds had been leveraged to produce $94 million for on-the-water conservation.

In fiscal year 2004, we were appropriated $2.497 million in NOAA funds which we were able to leverage with over $6 million in additional Foundation and partner dollars for a total conservation of $8.8 million. We achieved this leveraging of the Federal dollar by cultivating partnerships. In fiscal year 2004, the Foundation

partnered these funds with seven other foundations and several private sector corporations like Shell Oil, Pacific Life Insurance, Bass Pro Co., and ConocoPhillips.

In the fiscal year 2005 Omnibus Bill, we only received $1.7 million of our historical $2.5 million mark for our NOAA partnership. In addition to this lower allocation, 3 rescissions totaling 1.44 percent were also assigned by Congress which further impacts our level of funding. This brings the total for our NOAA program down to $1,675,600. This number could be further impacted by NOAA "Administrative Fees" before the money comes to the Foundation and can be up to 5 percent of the total.

Although we have not received our fiscal year 2005 funds yet, we have already received over $5 million in good project proposals competing for these dollars and expect more good proposals than we are able to fund as the fiscal year progresses. A 30 percent decrease will greatly impact funding available for our NOAA program, one of NOAA's largest leveraging vehicles and broadest brush for general marine and coastal conservation projects. The fiscal year 2005 budget cuts will only compound this need and compromise NOAA's ability to support desired quality projects. Projects often directly assist NOAA in achieving under funded management objectives and come to the Foundation with strong support from regional and program offices. In addition to supplementing these NOAA priorities through our appropriation, the Foundation leverages NOAA's dollar for an even greater impact than what they could achieve on their own.

Six special issue programs that we administer will also be impacted by the reduction in funds as they are also supported through the appropriation. Many of these programs were created at the request of NOAA to help focus more funds and attention to key priorities within the agency. The fiscal year 2005 cuts will obviously impact some or all of these programs in the number of projects they can support, and may have additional impacts if NOAA is the main or only partner. An even bigger concern may be in the need to have Federal monies to leverage the private funds that NOAA has asked us to raise to grow these special programs. Our fiscal year 2006 appropriations request will put us back on track to continue leveraging scarce Federal resources, and allow us to leverage even more and increase the resulting conservation benefits.

Although NOAA and the Foundation have partnered together in the conservation of specific priorities from great whales to the Chesapeake Bay, the heart of the partnership is the general conservation grant program. This general challenge grant program has allowed the Foundation to be highly successful in assisting NOAA in accomplishing its mission to help people conserve, maintain and improve our natural resources and environment and provide flexible response to achieving short and long-term objectives. In fiscal year 2004 the general call program supported partnerships that restored 70 acres of coastal, estuarine and nearshore habitat and helped rivers and streams that support anadromous fish habitat across the nation to be restored or managed more effectively.

Working Watersheds.—The Foundation awarded 7 projects to aid coastal and marine habitats in 2004 with $521,300 in NOAA dollars that was successfully leveraged with other Federal (this includes Environmental Protection Agency and U.S. Fish and Wildlife Service partnerships) and non-Federal dollars to apply more than $1.5 million to conservation. Our grant program was uniquely able to provide expertise by engaging local aquariums and community groups, fishermen, conservancies, universities, and local government to undertake on-the-ground hands-on restoration and replanting activities to off-set the tide of habitat loss in many of our coastal and nearshore systems. Areas of focus include:

—*Restoring Estuarine and Coastal Habitats*.—The steady rate of coastal development and damaging up-stream activities are causing our estuarine and coastal habitats to be lost at an alarming rate. The Foundation has had tremendous success in countering these problems by partnering NOAA funds with other agencies like the Environmental Protection Agency to address these issues from a whole watershed perspective as in the case of our Chesapeake Bay Small Watershed Grants Program and Delaware Estuary Grants Program. This model has proved so successful that in fiscal year 2004, we expanded our coastal habitat portfolio with a new program in Long Island Sound. The Long Island Sound Futures Fund partners NOAA, FWS, NRCS, and EPA and draws from State and Federal planning documents for priorities. In its launch year, the new program will be awarding 25–30 projects using approximately $1 million in Federal and non-Federal funds, resulting in $2.7 million to the region through leveraging. In addition to these monetary partnerships, these Foundation programs are tapping into local community resources. For example, one project allowed a community to complete and expand a wetland restoration near a former

industrial area enhancing the biological value and visual appeal of the site located near a shoreline nature trail.

In fiscal year 2006, we plan to build on this success by launching a similar program in the Great Lakes region, as well as investigate future programs in other priority areas in the San Francisco Bay area and the Puget Sound region.

—*Protecting Coral Reefs*.—In the marine environment, $1 million in NOAA dollars were leveraged in fiscal year 2004 to apply more than double that amount, $2.4 million, to 26 projects to conserve coral reefs. Project examples include protecting coral reefs and fish nurseries in Hawaii, quantifying the impact of sport divers on the reefs in the Florida Keys, evaluating management activities, implementing a volunteer fisheries data collection program, and building stakeholder support for reef management in Belize. Fiscal year 2005 priorities for the Fund consist of reducing nutrient run-off and sedimentation to coastal reefs, as well as supporting community leadership to improve the management and effectiveness of existing marine protected areas. This year will also build off of a new partnership with the White Water to Blue Water Initiative—Anchors Away! Program to establish mooring buoys programs to reduce the damage from anchoring on coral reefs.

Conserving Fish, Wildlife, and Plants.—With our NOAA dollars, the Foundation funds projects that directly benefit diverse fish and wildlife species including albatross in the waters off the Pacific, manatees and sea turtles in the Gulf and Southern Atlantic and right whales in the Northern Atlantic.

—*Threatened and Endangered Species Solutions*.—We measure our success by preventing the listing of species under the Endangered Species Act and by stabilizing and (hopefully) moving others off the list. We invest in common sense and innovative cooperative approaches to endangered species, building bridges between the government and the private sector. In fiscal year 2004, the Foundation used $584,460 in NOAA funds to support marine species conservation and recovery from Maine to Latin America. We leveraged this investment with an additional $1.6 million in Federal and non-Federal match funding, and expanded our coordination of this work with Federal, State, and local entities.

Expanding Conservation Education Opportunities.—The Foundation made great strides in diversifying our education and outreach activities with NOAA funds, in fiscal year 2004. All told, the Foundation awarded over $400,000 last year in NOAA funds for marine education—three times the support under this category than last year! This commitment was leveraged to more than $1.6 million in other Federal and non-Federal partnership dollars. Examples included a "Look, Don't Touch" billboard campaign to protect coral reefs in the Pacific, support for marine education spots on national public radio, and sponsorship of over 10 student scholarships in marine sciences. Other grants awarded will enhance or expand conservation education and training for students, teachers, private landowners, community groups and others.

Through these and other efforts, the Foundation remains committed to the conservation goals of our partners—Federal, State, local and private. In fiscal year 2006, we will continue to multiply our efforts to foster public-private partnerships. We also recognize that there are many unmet challenges, and we stand ready to help local communities and other conservation stakeholders to achieve success.

Accountability and Grantsmanship.—All potential grants are subject to a peer review process involving State and Federal agency staff, academics, community and environmental interests, corporations, and others. The review process examines the project's conservation need, technical merit, the support of the local community, the variety of partners, and the amount of proposed non-Federal cost share. We also provide a 30-day notification to the member of Congress for the congressional district in which a grant will be funded, prior to making the grant. In addition, the Foundation requires strict financial reporting by grantees and is subject to an annual audit.

Basic Facts About the Foundation.—The Foundation promotes conservation solutions by awarding matching grants using its federally appropriated funds to match private sector funds. We have a statutory requirement to match Federal funds with at least an equal amount of non-Federal funds, which we consistently exceed. No Federal appropriations are used to meet our administrative expenses.

The Foundation is governed by a 25-member Board of Directors, appointed by the Secretary of the Interior and in consultation with the Secretary of Commerce, and operates on a nonpartisan basis. Directors do not receive any financial compensation for service on the Board; in fact, all of our directors make financial contributions to the Foundation. It is a diverse Board, representing the corporate, philanthropic, and conservation communities; all with a tenacious commitment to fish and wildlife conservation.

The National Fish and Wildlife Foundation continues to be one of, if not the, most cost-effective conservation program funded in part by the Federal Government. By implementing real-world solutions with the private sector while avoiding regulatory or advocacy activity, we serve as a model for bringing private sector leadership to Federal agencies and for developing cooperative solutions to environmental issues. We are confident that the money you appropriate to the Foundation is making a positive difference.

PREPARED STATEMENT OF THE AMERICAN ASTRONOMICAL SOCIETY

I submit this testimony on behalf of the American Astronomical Society and have attached a disclosure statement of the Society's various Federal grants by agency and program received during the previous 2 fiscal years.

INTRODUCTION

The American Astronomical Society (AAS) is the largest professional organization for research astronomers in the United States. With approximately 6,500 members, the AAS publishes the major astronomical research journals and also organizes meetings to highlight recent results and discoveries. The organization was founded in 1899 and has helped the profession grow to its present robust state.

Government support has been essential to the stunning achievements of astronomy research in the United States. Within just the past 15 years, U.S. astronomers supported by NASA, the NSF and the DOE have led the way in discovering the first planets around other stars and in determining that we live in a Universe whose expansion is speeding up, driven by a previously undetected component of the Universe, the dark energy. These discoveries appeal to the imagination of a wide segment of the public and confront our most basic understanding of the physical world. Discoveries made with government-funded telescopes, both on the ground and in space, appear daily on the front pages of the Nation's newspapers. The American public values astronomy and endorses government support for astronomy research. Although only a small portion of the Federal investment in basic research goes to astronomy, astronomy plays a vital role for all of physical science by drawing interested students into careers in physical science, engineering, and mathematics. Statistics show that fewer than 20 percent of undergraduate astronomy students ultimately work in basic astronomy research, but nearly all of them find work in technical fields, bolstering our Nation's economy, and improving our quality of life.

THE DECADAL SURVEY OF ASTRONOMY AND ASTROPHYSICS

The Astronomy community has a long history of setting priorities within the field. Each decade, supported by NASA and NSF as well as the AAS, astronomers meet over a 2-year period to decide what physical resources are needed for the coming decade. Through a National Research Council committee, the state of the science is reviewed, the areas of research most likely to produce significant results are ranked, and the facilities needed to carry out this path breaking work are assessed. The result is a prioritized, consensus list with realistic costs for astronomical facilities on the ground and in space to be built in the coming decade. Dubbed the Decadal Survey, the reports are available from the National Research Council's Space Studies Board and Committee on Physics and Astronomy. By reaching consensus on the telescopes, space missions and other needs necessary for the coming decade, astronomers aim to help policy makers as they decide what projects to fund. Because the Decadal Survey represents a carefully constructed consensus among the astronomy research community, legislators can be sure that the community will endorse funding projects that are on this list. Missions or projects not on the list may still be of great importance, but unless they are included in the survey or the mid-course review of the survey (also prepared by the NRC and representing community consensus as each decade progresses), additional projects deserve careful scrutiny prior to being funded.

Astronomers are proud of this process and we are happy to see that our close colleagues, the planetary science community and the solar and space physics community have initiated similar efforts, publishing their first decadal survey reports in just the past 4 years. The AAS has formally endorsed all three reports and actively works to educate policy makers about their importance for our discipline. Because we have seen how effective a well-ordered list of priorities can be in helping with the policy making process, we hope that other fields will attempt to undertake their own priority-setting efforts.

Another recent report, Quarks to the Cosmos, has been published by the National Research Council to highlight the growing synergy between basic physics and astronomy. This report provides 11 basic questions and outlines a way toward answering them through partnerships among the three basic funding agencies that support astronomy, NASA, NSF and the DOE. The AAS has endorsed this report and supports its recommendations. One recent development is the establishment by Congress of a FACA committee: the Astronomy and Astrophysics Advisory Committee (AAAC). This committee is charged with assessing and making recommendations concerning the astronomy and astrophysics activities of NASA, NSF, and DOE and in monitoring their progress in fulfilling the outlines of the Decadal report and its sequels. Their report is sent each March 15 to the appropriate Congressional committees, the NASA Administrator, the NSF Director, and widely distributed within OMB, OSTP, and to agency personnel.

THE HUBBLE SPACE TELESCOPE

As all U.S. citizens are aware, the Hubble Space Telescope (HST) is in danger of failing on orbit due to declining battery performance and fine guidance gyroscope failure. The former administrator of NASA, Sean O'Keefe, decided to cancel long-planned astronaut servicing of the telescope. A National Research Council committee was ultimately formed to investigate alternatives for the future of the HST. Chaired by Lou Lanzerotti and composed of experts from a variety of backgrounds including engineering, aerospace and safety, the committee recommended that NASA service the telescope using astronauts on the Shuttle. The AAS has formally endorsed this report and its recommendations. We are delighted to see that the new NASA Administrator, Mike Griffin, promises to undertake an internal review of a possible Shuttle servicing mission immediately after the first flight of the Shuttle. Further, the AAS endorsement points out that a serviced HST will continue to produce excellent science results. If, in a departure from past practice and understandings, the cost of servicing the telescope were funded completely from NASA's science budget, this would have a serious impact on the entire range of science that NASA supports. A creative funding solution is necessary to both service HST and retain the vitality of NASA's existing science programs. The present budget, even without costs attributed to Hubble servicing, has caused many useful science programs to be curtailed at NASA, disrupting productive research by AAS members. We recommend that Congress find a way to meet both of these important needs.

LARGE FACILITIES FUNDED BY NSF

Astronomers require large telescopes to collect faint light from the furthest reaches of the Universe. The National Science Foundation plays a critical role in astronomy research through its construction, operation and enhancement of ground-based telescopes that are available to all U.S. astronomers and through support of instrumentation at telescopes run by universities or by private organizations. The National Optical Astronomy Observatories, National Radio Astronomy Observatory, National Astronomy and Ionospheric Center, and the National Solar Observatory all provide access to large telescopes with cutting-edge technology to astronomers from both large and small colleges and universities. The Gemini Observatories: two 8-meter telescopes, one located in the Northern hemisphere and one in the Southern, have recently been completed. The Atacama Large Millimeter Array: a radio wavelength interferometer that will allow a wide range of studies ranging from the furthest reaches of the Universe to the formation of nearby stars and planets is now under construction. The Advanced Technology Solar Telescope: a telescope that will provide the best images of the nearest star's surface and allow new insight into the complex role of magnetic fields and the impact of solar variability on our Earth.

These large facilities are expensive to build and expensive to operate, but they are of fundamental importance. A new generation of telescopes seems within out technical reach, much larger and more powerful than any that have gone before. The Giant Segmented Mirror Telescope is a top priority in the Decadal Report, and it seems likely to come to fruition as a public-private partnership. A forward-looking approach to developing the technologies for the giant telescopes of the not-too-distant future will require creative thinking at the NSF to plan ahead for these large facilities. Similarly, the potential for developing a new kind of astronomy based on frequent surveys of the sky will harness the revolution in electronic detectors and in data processing to astronomical ends. These synoptic surveys promise to find everything from rogue objects in the solar system to exploding stars at the edge of the Universe.

The AAS strongly supports the construction and operation of the Nation's large research facilities, especially the telescopes supported by the NSF. We recommend

that Congress continue to support these facilities adequately. One important part of any effective plan is provision of adequate operations support for the lifetime of any new facility. This needs to include funds for upgrading the instrumentation as new technology becomes available. Old telescopes can provide new insight when adequate development support is provided to the engineers and scientists who build new instruments for these large telescopes. This recommendation is also one of the high priority items in the most recent Decadal Survey and is strongly supported by the astronomy community.

THE VISION FOR EXPLORATION AT NASA

NASA's space science program is returning excellent results on a very broad range of topics. Their work is visible to the public worldwide. There are excellent programs in progress, following the precepts of the Decadal Survey, including the highest ranked large project in space: the James Webb Space Telescope. However, the challenges for NASA are very substantial. Within the current budget constraints, NASA is being asked to complete the International Space Station and ramp down the Space Shuttle while initiating the Exploration Vision. We expect that NASA will find a way to integrate its broad and vigorous space science program into the stated strategic goals of the agency in a way that strengthens the Exploration Vision. NASA should do this for the scientific returns, the inspirational value to the Nation, and as a continuing demonstration of NASA's value to the Nation and to the world. Exploration without science is tourism.

CONCLUSION

The Congress continues to support a vital and energetic research program in the astronomical sciences. The AAS thanks Congress for this support on behalf of the U.S. astronomy community. The budgets of NASA, NSF and the DOE are all important for astronomy research. Astronomy makes a direct connection to the U.S. public: we know they support the use of public funds to support astronomy research. The AAS understands that there are many pressures on the Federal budget, but we know that investment in astronomy is important and wise use of public funds. People want to know what the Universe is and how it works. Many students are drawn to science through astronomy. They very often end up helping our economy in other areas, especially in technology development, the physical sciences, or engineering. Astronomy is good for the United States and a valuable investment for the Congress.

STATEMENT ON GRANTS

The American Astronomical Society has held in the past 2 fiscal years the following grants.

NASA

NAG5–4537 Astronomical Research Projects.—$341,000 (fiscal year 2005-fiscal year 2008).

NAG5–12126 Astronomical Research Projects.—$294,737 (fiscal year 2002-fiscal year 2004).

NSF

AST002–28004 International Travel Grant Program.—$325,500 (fiscal year 2002-fiscal year 2005).

AST004–31452 Request for the Annual ISEF Bok and Lines Awards.—$77,880 (fiscal year 2004-fiscal year 2007).

PREPARED STATEMENT OF THE GREAT LAKES INDIAN FISH AND WILDLIFE COMMISSION

Agency Involved.—Department of Justice.

Program Involved.—COPS Tribal Resources Grant Program.

Summary of GLIFWC's Fiscal Year 2006 Testimony.—The Commission requests that Congress support the administration's proposal to fund this program at $51,600,000 in fiscal year 2006, an increase of $31,867,000 above last year's Congressional appropriation.

Disclosure of DOJ Grants Contracted.—The Commission is an intertribal organization which, under the direction of its member tribes, implements Federal court orders governing tribal harvests of off-reservation natural resources and the formation of conservation partnerships to protect and enhance natural resources within

the 1836, 1837, and 1842 ceded territories (See map). Under COPS Tribal Resources Grant Program, the Commission contracted:

—$172,924 in fiscal year 2000 for the purposes of replacing obsolete radio equipment and to improve the capacity of GLIFWC's officers to provide emergency services throughout the Chippewa ceded territories;

—$292,190 in fiscal year 2001 for the purposes of replacing obsolete patrol vehicles (boats, ATVs, and snowmobiles), purchasing portable defibrillators, and training GLIFWC officers;

—$302,488 in fiscal year 2002 for the purposes of replacing obsolete patrol vehicles (ATVs and snowmobiles), improving officer safety (in-car video cameras), increasing computer capabilities, and expanding training of GLIFWC officers in interagency emergency response;

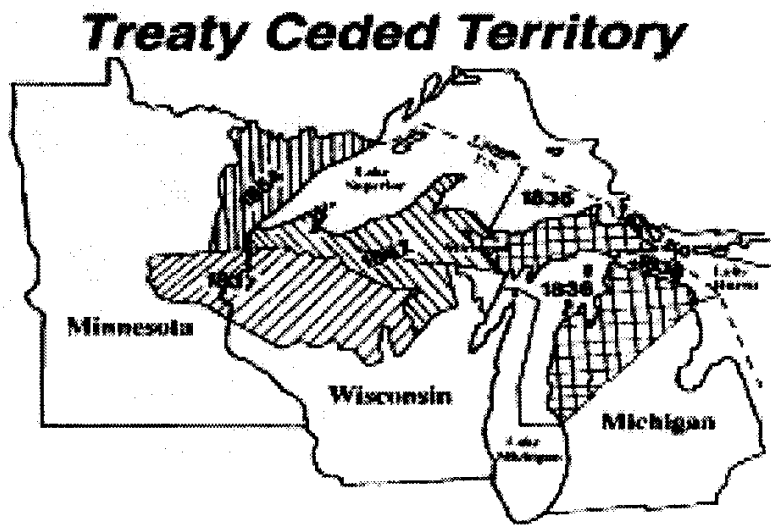
—$280,164 in fiscal year 2003 for the purposes of hiring three additional officers, providing basic recruit training, and supplying standard issue items; and

—$108,034 in fiscal year 2004 for the purposes of purchasing patrol vehicles (three patrol trucks, an ATV and snowmobile), digital cameras, and providing instructor development and basic recruit training.

Ceded Territory Treaty Rights and GLIFWC's Role.—GLIFWC was established in 1984 as a "tribal organization" within the meaning of the Indian Self-Determination Act (Public Law 93–638). It exercises authority delegated by its member tribes to implement Federal court orders and various interjurisdictional agreements related to their treaty rights. GLIFWC assists its member tribes in:

—securing and implementing treaty guaranteed rights to hunt, fish, and gather in Chippewa treaty ceded territories; and

—cooperatively managing and protecting ceded territory natural resources and their habitats.



For the past 20 years, Congress and administrations have funded GLIFWC through the BIA, Department of Justice and other agencies to meet specific Federal obligations under: (a) a number of U.S./Chippewa treaties; (b) the Federal trust responsibility; (c) the Indian Self-Determination Act, the Clean Water Act, and other legislation; and (d) various court decisions, including a 1999 U.S. Supreme Court case, affirming the treaty rights of GLIFWC's member Tribes. GLIFWC serves as a cost efficient agency to conserve natural resources, to effectively regulate harvests of natural resources shared among treaty signatory tribes, to develop cooperative partnerships with other government agencies, educational institutions, and non-governmental organizations, and to work with its member tribes to protect and conserve ceded territory natural resources.

Under the direction of its member tribes, GLIFWC operates a ceded territory hunting, fishing, and gathering rights protection/implementation program through its staff of biologists, scientists, technicians, conservation enforcement officers, and public information specialists.

Community Based Policing.—GLIFWC's officers carry out their duties through a community-based policing program. The underlying premise is that effective detection and deterrence of illegal activities, as well as education of the regulated constituents, are best accomplished if the officers live and work within tribal communities that they primarily serve. The officers are based in 10 satellite offices located on the reservations of the following member tribes: In Wisconsin—Bad River, Lac Courte Oreilles, Lac du Flambeau, Red Cliff, Sokaogon Chippewa (Mole Lake) and St. Croix; in Minnesota—Mille Lacs; and in Michigan—Bay Mills, Keweenaw Bay and Lac Vieux Desert.

Interaction with Law Enforcement Agencies.—GLIFWC's officers are integral members of regional emergency services networks in Minnesota, Michigan and Wisconsin. They not only enforce the tribes' conservation codes, but are fully certified officers who work cooperatively with surrounding authorities when they detect violations of State or Federal criminal and conservation laws. These partnerships evolved from the inter-governmental cooperation required to combat the violence experienced during the early implementation of treaty rights in Wisconsin. As time passed, GLIFWC's professional officers continued to provide a bridge between local law enforcement and many rural Indian communities. GLIFWC remains at this forefront, using DOJ funding, to develop inter-jurisdictional legal training attended by GLIFWC officers, tribal police and conservation officers, tribal judges, tribal and county prosecutors, and State and Federal agency law enforcement staff. DOJ funding has also enabled GLIFWC to certify its officers as medical emergency first responders, including CPR, and in the use of defibrillators, and train them in search and rescue, particularly in cold water rescue techniques. When a crime is in progress or emergencies occur, local, State, and Federal law enforcement agencies look to GLIFWC's officers as part of the mutual assistance networks of the ceded territories. This network includes the Wisconsin Department of Natural Resources, Minnesota Department of Natural Resources, Michigan Department of Natural Resources, U.S. Coast Guard, USDA-Forest Service, State Patrol and Police, county sheriffs departments, municipal police forces, fire departments and emergency medical services.

GLIFWC Programs Currently Funded by DOJ.—GLIFWC recognizes that adequate communications, training, and equipment are essential both for the safety of its officers and for the role that GLIFWC's officers play in the proper functioning of interjurisdictional emergency mutual assistance networks in the ceded territories. GLIFWC's COPS grants for the past 4 years have provided a critical foundation for achieving these goals. Significant accomplishments with Tribal Resources Grant Program funds include:

—*Improved Radio Communications and Increased Officer Safety*.—GLIFWC replaced obsolete radio equipment to improve the capacity of officers to provide emergency services throughout the Chippewa ceded territories. GLIFWC also used COPS funding to provide each officer a bullet-proof vest, night vision equipment, and in-car videos to increase officer safety.

—*Emergency Response Equipment and Training*.—Each GLIFWC officer has completed certification as a First Responder and in the use of life saving portable defibrillators. In 2003, GLIFWC officers carried First Responder kits and portable defibrillators during their patrol of 275,257 miles throughout the ceded territories. In remote, rural areas the ability of GLIFWC officers to respond to emergencies provides critical support of mutual aid agreements with Federal, State, and local law enforcement agencies.

—*Ice Rescue Capabilities*.—Each GLIFWC officer was certified in ice rescue techniques and provided a Coast Guard approved ice rescue suit. In addition, each of GLIFWC's 10 reservation satellite offices was provided a snowmobile and an ice rescue sled to participate in interagency ice rescue operations with county sheriffs departments and local fire departments.

—*Wilderness Search and Rescue Capabilities*.—Each GLIFWC officer completed Wilderness Search and Rescue training. The COPS Tribal Resources Grant Program also enabled GLIFWC to replace many vehicles that were purchased over a decade ago including 10 ATV's and 16 patrol boats and the GPS navigation system on its 31 foot Lake Superior Patrol Boat. These vehicles are used for field patrol, cooperative law enforcement activities, and emergency response in the 1837 and 1842 Chippewa Ceded Territories. GLIFWC officers also utilize these vehicles for boater, ATV, and snowmobile safety classes taught on Reservations as part of the Commission's Community Policing Strategy.

—*Hire, Train, Supply, and Equip Three Additional Officers*.—Funding has been contracted to provide three additional officers to ensure tribes are able to meet obligations to both enforce off-reservation conservation codes and effectively participate in the myriad of mutual assistance networks located throughout a vast region covering 60,000 square miles.

Consistent with numerous other Federal court rulings on the Chippewa treaties, the United States Supreme Court recently affirmed the existence of the Chippewa's treaty-guaranteed usufructuary rights Minnesota v. Mille Lacs Band, 526 U.S. 172 (1999). As tribes have re-affirmed rights to harvest resources in the 1837 ceded territory of Minnesota, workloads have increased. This expanded workload, combined with staff shortages would have limited GLIFWC's effective participation in regional emergency services networks in Minnesota, Michigan and Wisconsin. The effectiveness of these mutual assistance networks is more critical than ever given: (1) National homeland security concerns, (2) State and local governmental fiscal shortfalls, and (3) staffing shortages experienced by local police, fire, and ambulance departments due to the call up of National Guard and military reserve units.

Examples of the types of assistance provided by GLIFWC officers are provided below:

—as trained first responders, GLIFWC officers routinely respond to, and often are the first to arrive at, snowmobile accidents, heart attacks, hunting accidents, and automobile accidents (throughout the ceded territories) and provide sheriffs' departments valuable assistance with natural disasters (e.g. floods in Ashland County and a tornado in Siren, Wisconsin).

—search and rescue for lost hunters, fishermen, hikers, children, and elderly (Sawyer, Ashland, Bayfield, Burnett, and Forest counties in Wisconsin and Baraga, Chippewa, and Gogebic counties in Michigan).

—being among the first to arrive on the scene where officers from other agencies have been shot (Bayfield, Burnett, and Polk counties in Wisconsin) and responding to weapons incidents (Ashland, Burnett, Sawyer, and Vilas counties in Wisconsin).

—organize and participate in search and rescues of: (1) ice fishermen on Lake Superior (Ashland and Bayfield counties in Wisconsin), (2) Lake Superior boats (Baraga county in Michigan and with the U.S. Coast Guard in other parts of western Lake Superior), (3) lost airplanes (Ashland, Forest and Washburn counties in Wisconsin), and (4) drowning incidents (St. Croix River on the Minnesota/Wisconsin border, Sawyer county in Wisconsin, Gogebic county in Michigan).

Simply put, supporting GLIFWC's officers will not only assist GLIFWC in meeting its obligations to enforce tribal off-reservation codes, but it will enhance intergovernmental efforts to protect public safety and welfare throughout the region by the states of Wisconsin, Minnesota, and Michigan. The COPS Tribal Resources Grant Program provides essential funding for equipment and training to support GLIFWC's cooperative conservation, law enforcement, and emergency response activities. We ask Congress to support increased funding for this program.

PREPARED STATEMENT OF THE AMERICAN PSYCHOLOGICAL SOCIETY

SUMMARY OF RECOMMENDATIONS

APS supports the Coalition for National Science Funding recommendation of $6 billion for the National Science Foundation in fiscal year 2006.

We ask that the Social, Behavioral and Economic Sciences (SBE) Directorate be funded at the 10.3 percent increase the President proposed in last year's NSF budget request.

Mr. Chairman, members of the committee, thank you for this opportunity to present the views of the American Psychological Society (APS) on the fiscal year 2006 appropriations of the National Science Foundation (NSF). APS is a nonprofit organization dedicated to the promotion, protection, and advancement of the interests of scientifically oriented psychology in research, application, teaching, and the improvement of human welfare. Our 16,000 members are scientists and academics at the Nation's universities and colleges. The NSF supports many members of APS, and a great deal of basic research in our field simply could not exist without NSF funding.

THE NATION'S PREMIERE BASIC RESEARCH ENTERPRISE

When the administration requested a mere 2.47 percent ($132 million) increase for the National Science Foundation in fiscal year 2006, it placed the progress of

scientific research on hold. We are extremely disappointed as the request will barely maintain the costs of inflation, and will not sustain and advance the Nation's investment in scientific research.

In the spirit of the NSF Authorization Act of 2002 (H.R. 4664) passed by the 107th Congress and signed by the President (Public Law 107–368), we join with the Coalition for National Science Funding (CNSF) in recommending $6 billion for the National Science Foundation. Matching the reauthorization would lead us toward a much-needed doubling of the Nation's premiere basic research enterprise—bringing NSF from $4.8 billion to $9.8 billion over 5 years. The basic science community asks the committee to make the underlying intent of this authorization a reality. The increases Congress has provided for NSF in the past, and the increase we are recommending today, are important steps in offsetting the under-funding that is a chronic condition for NSF. We hope you will continue to expand NSF's budget.

THE SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES (SBE) DIRECTORATE

On June 1, David W. Lightfoot, Ph.D. will become NSF Assistant Director for Social, Behavioral and Economic Sciences. We ask the committee to join us in welcoming Dr. Lightfoot.

The Directorate for the Social, Behavioral and Economic Sciences (SBE) supports funding for basic behavioral research. Under the administration's budget plan, SBE would receive $198.8 million, 1 percent over fiscal year 2005. This comes on the heels of a series of below-average increases in previous years.

Over the years, many initiatives of the SBE Directorate have been encouraged. But this is not what has occurred recently. Although the President proposed a 10.3 percent increase for SBE in fiscal year 2005, SBE received an increase of only 6.8 percent over fiscal year 2004. A similar process occurred the previous fiscal year. We are concerned about this shortfall, given the enormous potential of behavioral science to address many critical issues facing the Nation. To offset previous years' under-funding, we ask the committee to fund SBE at the 10.3 percent increase the President proposed in last year's NSF budget request. At the very least, we ask that the SBE Directorate share proportionately in any such increases ultimately received by NSF.

An Overview of Basic Psychological Research.—NSF programs and initiatives that involve psychological science are our best chance to solve the enigma that has perplexed us for so long: How does the human mind work and develop? APS members include many scientists who conduct basic research in areas such as learning, cognition, and memory, and the linked mechanisms of how we process information through visual and auditory perception. Others study judgment and decision-making (the focus of a Nobel prize recently awarded to APS Fellow and NSF grantee Daniel Kahneman); mathematical reasoning (the focus of the most recent President's Medal of Science awarded to APS Fellow and NSF Grantee R. Duncan Luce); language development; the developmental origins of behavior; and the impact of individual, environmental and social factors in behavior.

What's more, basic psychological research supported by NSF and conducted by APS members ultimately has had a wide range of applications, including designing technology that incorporates the perceptual and cognitive functioning of humans; teaching math to children; improving learning through the use of technology; developing more effective hearing aids and speech recognition machines; increasing workforce productivity; and ameliorating social problems such as prejudice or violence. While this is a diverse range of topics, all these areas of research are bound together by a simple notion: that understanding the human mind, brain, and behavior is crucial to maximizing human potential. That places these pursuits squarely at the forefront of several of the most pressing issues facing the Nation, this Congress, and the administration.

We also believe that progress in psychological science will lead to advances in our powers to predict, detect, and prevent terrorism, in support of the basic science related to Homeland Security. In this time of uncertainty, where we can come to rely so heavily on technology to keep us safe and confident, we must turn to social behavior and cognition in order to maximize this technology. An understanding of how people process information will enable us to design technology that fits our needs and make us comfortable when using them. The potential for advances are limitless.

SBE HIGHLIGHTS

Research supported by the SBE Directorate has the potential to increase employee productivity, improve decision making in critical military or civilian emergency situations, and inform the public policymaking processes across a range of areas. To give just a few examples:

Perception, Action, and Cognition.—The perception, action, and cognition program at NSF supports research on these three functions, and the development of these capacities. Topics include vision, audition, attention, memory, reasoning, written and spoken discourse, motor control, and developmental issues in all topic areas. The program encompasses a range of theoretical perspectives such as symbolic computation, complex systems, and a variety of methodologies including experimental studies and modeling. By studying high-level cognitive activities, we can discover the core of cognition and what cognition qualities are universal.

Cognitive Neuroscience Initiative.—Cognitive neuroscience, within the last decade, has become an active and influential discipline, relying on the interaction of a number of sciences, including psychology, cognitive science, neurology, neuroimaging, physiology and others. The cross-disciplinary aspects of this field have spurred a rapid growth in significant scientific advances. Cognitive neuroscientists are able to clarify their findings by examining developmental and transformational aspects of these phenomena across the lifespan. With brain imaging and other non-invasive techniques, we are poised to confirm and extend these theories through studies of the living brain. The Cognitive Neuroscience program solicits innovative proposals aimed at advancing an understanding of how the human brain supports thought, perception, emotion, action, social processes, and other aspects of cognition and behavior. Scientists from a range of areas test theories about normal brain functioning; assess the behavioral consequences of brain damage; and reach new levels of understanding of how the brain develops and matures.

NSF's Children's Research Initiative.—Recognizing that a combination of perspectives—cognitive, psychological, social, and neural—is needed to fully understand how children develop and how they acquire and use knowledge and skills, the SBE Directorate supports interdisciplinary research centers that focus primarily on integrating traditionally disparate research disciplines concerned with child development. Known as the Children's Research Initiative (CRI), this program brings together such areas as cognitive development, broader cognitive science and broader developmental psychology, linguistics, neuroscience, anthropology, social psychology, sociology, family studies, cross-cultural research, and environmental psychology to name a few disciplines.

And at a broader level, SBE's Social and Economic Sciences (SES) Division supports research and related activities aimed at better understanding, both nationally and internationally, political, economic and social systems and how individuals and organizations function within them. Further, it supports research activities related to risk assessment and decision making by individuals and groups, methods and statistics applicable across the behavioral sciences and broadening participation in the social, behavioral and economic sciences.

Finally, NSF's ever-important Behavioral and Cognitive Sciences (BCS) Division supports research activities to advance the fundamental understanding of behavioral and cognitive sciences by developing and advancing scientific knowledge and methods focused on human cognition and behavior, including perception, social behavior and learning.

In fiscal year 2006, for example, $1.27 million will support core research in behavioral and cognitive sciences to enable additional research on human origins, documenting endangered languages, the neural substrates of cognition, children's development and fundamental human social processes. Additional dollars will also support important research-related activities focusing on human diversity, including those designed to more effectively broaden participation of underrepresented groups in behavioral and cognitive science activities.

CROSS-CUTTING BEHAVIORAL INITIATIVES AT NSF

Human and Social Dynamics.—Human and Social Dynamics (HSD) fosters breakthroughs in understanding human action and development by multi-disciplinary approaches to the causes and impact of social change. As it seeks to explore the convergence of biology, engineering, technology, and cognition, we will continue to learn more about decision-making and risk taking. For example, in fiscal year 2006 NSF is looking to advance understanding by exploring the interplay of neurological, sensory-motor, psychological, informational and social and organizational systems that produce coordinated efforts between individuals.

As technology and engineering continue to develop at breakneck speed, it is essential that we study the human dynamics of such advances. One of the biggest challenges facing behavioral scientists is the understanding of everyday human performance and action, and how that is influenced by rapid change. HSD will support research that examines this challenge. The initiative seeks to refine our knowledge about decision-making, risk, and uncertainty, and then take this new knowledge

and translate it into improved decision-making techniques. We live in a world where science such as this cannot be allowed to lag behind.

An overlapping area is decision-making under uncertainty. Decision-making under normal circumstances is complex enough; that complexity is compounded in a crisis. It is necessary to study such factors as distributed versus centralized decision making systems, new approaches to risk analyses, and the development of new tools and approaches to facilitate effective decision making and risk analysis under difficult or unique circumstances, including behavioral research in response to extreme events, such as terrorist attacks or natural disasters.

The Science of Learning.—How people think, learn and remember are core NSF areas, drawing from topics across psychology: brain and behavior, learning, memory, perception, social psychology, and development. The challenge is: how can we apply and extend our knowledge of how people think, learn and remember to improve education?

The Science of Learning Centers, launched in fiscal year 2003, will advance our understanding of the learning process and learning technologies. The Centers will strengthen the ties between education research and the education workforce. They will build collaborative research communities to respond to new challenges as they arise.

In the administration's request, the Science of Learning Centers program is slated for $23 million, a welcome 15.9 percent increase over fiscal year 2005. The Centers will extend the frontiers of learning knowledge through investigations in human-computer interactions, cognitive psychology, cognitive neuroscience, and child learning and cognitive development.

In closing, I want to note that building and sustaining the capacity for innovation and discovery in the behavioral sciences is a goal of the National Science Foundation. We ask that you encourage NSF's efforts in these areas, not just those activities described here, but the full range of activities supported by the SBE directorate and by NSF at large. Your support will help NSF lay the groundwork for this long-overdue emphasis on these sciences. Thank you.

PREPARED STATEMENT OF THE ECOLOGICAL SOCIETY OF AMERICA

As President of the Ecological Society of America, I am pleased to provide written testimony for the National Oceanic & Atmospheric Administration, National Aeronautics and Space Administration, and the National Science Foundation. The Ecological Society of America has been the Nation's premier professional society of ecological scientists for 90 years, with a current membership of 9,000 researchers, educators, and managers.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Of particular interest to our community are NOAA's offices of the National Ocean Service (budget request is $414.7 million), the National Marine Fisheries Service (proposed budget is $727.9 million), and the Oceans and Atmospheric Research (budget request is $372.2 million). These offices support intramural and extramural research critical to NOAA's mission of managing marine and coastal resources to meet the Nation's environmental, economic, and social needs.

NOAA is the only institution that collects and utilizes nationwide atmospheric and oceanic data. Its research on fisheries and coastal processes has become increasingly important as pressures on coastal areas and on fish populations grow. In-house NOAA research is an essential element of ecological research and provides stock assessments, basic research on fish species and marine mammals, as well as marine habitats. Without this research, NOAA could not meet its obligations under the Marine Mammal Protection Act, the Endangered Species Act or the Magnuson-Stevens Fisheries Conservation and Management Act and our scientific understanding of these topics would be greatly diminished. In addition to its intramural research programs, NOAA is a major funder of many important external research endeavors including research focused on harmful algal blooms, toxic contamination of estuaries, coastal habitat loss, non-point source pollution, and fishing gear impacts.

The National Marine Fisheries Service (NMFS) provides the science necessary for revitalization of the Nation's fisheries resources and for the sustainability of the Nation's marine resources. The administration is proposing cutting NMFS by $95.8 million, although funding for stock assessments and protected species research and management would increase. While these are worthy areas of research, they should not come at the expense of other important programs such as habitat conservation and restoration.

Within the National Ocean Service, two programs fund coastal ecological assessment or research. The Ocean Assessment Program, which funds critical monitoring projects such as coastal observing systems, would receive $55.2 million for fiscal year 2006. This represents a dramatic drop from the $146.9 million approved by Congress in fiscal year 2005. ESA appreciates past congressional support of this monitoring program and encourages support beyond the administration's request.

The National Ocean Service also requests $48 million for the National Centers for Coastal Ocean Science (NCCOS), which joins NOAA's five coastal research centers. This request is $11.6 million below the amount appropriated for fiscal year 2005. ESA urges that funding for this program be restored to fiscal year 2005 levels, as NCCOS activities focus on five areas of ecosystem research that are national in scope and crucial to the Nation's research needs: climate change, extreme natural events, pollution, invasive species and land and resource use.

The administration's fiscal year 2006 budget request for ocean, coastal, and Great Lakes research through the Oceans and Atmospheric Research (OAR) office is $118.6 million, a 19.2 percent decrease from fiscal year 2005 enacted levels. ESA appreciates past congressional support of this monitoring program and encourages support beyond the administration's request. Of particular importance to ESA is the National Sea Grant Program, administered by OAR, which supports research, education, and extension projects to help the United States better manage its coastal resources. The administration requests stable funding ($61.2 million) for the National Sea Grant Program for fiscal year 2006. The Ecological Society of America appreciates the recognition by Congress and the administration that this highly successful program is an important component of our coastal policy. We acknowledge the current budget constraints but would like to see this program's funding grow in the future.

In addition, the National Undersea Research Program, which places scientists under the sea to conduct research, would fall by $1 million under the President's proposal. If this decrease were to go into effect, it would cut underwater ecosystem science projects—which support coastal and ocean resource management—by 20 percent. ESA urges that funding for this program be restored to the fiscal year 2005 level.

NOAA's research programs provide the Nation with valuable understanding of the workings of the oceans and atmosphere. NOAA has greatly advanced the field of ecological science through both its in-house science programs and its commitment to funding external research. The Ecological Society of America thanks Congress for its past strong support of these programs and asks for its support in ensuring that NOAA retains its ability to wisely manage the Nation's coastal and marine resources using the best scientific information.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The Ecological Society of America is disappointed that earth science research is not a priority in the President's budget request for NASA in fiscal year 2006. Although NASA's total Research and Development would grow to $11.5 billion, research in the earth sciences (down 4 percent to $2.1 billion), and biological and physical research (down 22 percent to $807 million), would face steep cuts in research on our home planet in order to fund space exploration.

ESA urges that funding for this program be restored to the fiscal year 2005 level and that NASA increase its in-house research on environmental science. Currently, NASA is the leading Federal sponsor of the environmental sciences (oceanography, atmospheric sciences, geological sciences). The environmental sciences are a quarter of NASA's portfolio, but NASA accounts for a third of total Federal support for environmental sciences research. NASA has played a vital role in developing the Nation's capability to observe and understand earth systems, including research on climate change, remote sensing technology, ecosystem monitoring, and energy cycling. At a time when the Nation and the globe face increasing environmental and natural resource challenges, we believe it is critical to continue to support NASA's earth systems research.

NATIONAL SCIENCE FOUNDATION

In order to ensure the Nation's future prosperity and security, the Ecological Society of America requests that the committee fund the National Science Foundation (NSF) at $6 billion. We recognize the current fiscal climate, but Federal investment in this agency—the only one to fund science and education across all disciplines—has yielded tremendous national benefits.

One indicator of the need to support NSF is the agency's low grant proposal success rate—in 2004, 5,400 proposals rated "very good" or "excellent" by NSF's peer

review process were passed over due to lack of funds. The grant proposal success rate for the Biology Directorate is among the lowest of all the NSF directorates. We are concerned that the low grant success rate will eventually affect the choices of U.S. students as to whether or not they will choose to enter the field of ecology, a science that is crucial to meeting emerging environmental challenges.

We ask for Congress's support in recognizing the unique role NSF plays in supporting non-medical biology. NSF is the principal Federal supporter of academic, non-medical research in biology and ecology; over 60 percent of the extramural funding for this type of research comes from the NSF. Research made possible by funding from NSF has shed much light on key environmental processes, the interactions among organisms, and the complex responses of ecosystems to stresses such as air and water pollutants. The knowledge gained from this research is critical input to the wise management of the environment for the benefit of humankind.

Within the Biology Directorate, the Division of Environmental Biology (DEB) supports fundamental research on the evolutionary history of species and on the interactions of biological communities and ecosystems, ranging from the relatively undisturbed to heavily human-impacted systems. DEB-supported researchers address a range of issues important to all of us-the consequences of excess nitrogen in the environment; the costly effects of invasive plants and animals; and the potential impacts of climate change on the Nation's ecosystems and biodiversity.

In addition to supporting core biology funding, the Biology Directorate includes other programs important to the ecological community, such as the Long Term Ecological Research (LTER) Program and the agency's National Center for Ecological Analysis and Synthesis (NCEAS). We ask that the subcommittee support the budget request of $17.5 million (no change from last year's enacted amount) for LTER and $3.8 million (a 10 percent increase) for NCEAS.

Finally, we encourage support of the agency's request for $6 million for the National Ecological Observatory Network (NEON) within Biology's Research and Related Activities Account. This request would continue development of the NEON execution plan and of related cyberstructure, which is a key component of the NEON program. NEON has the potential to integrate existing environmental monitoring efforts by standardizing the way in which data are collected and thereby improving the Nation's overall ability to track environmental changes.

ESA thanks Congress for its strong support of the National Science Foundation. As the only Federal agency to support science and education across all disciplines, NSF"s contributions have been extremely valuable to the U.S. research enterprise. We hope that Congress will ensure the agency continues on this path, with support across all science disciplines and recognition of the vital role NSF plays in supporting non-medical biology.

JOINT PREPARED STATEMENT OF THE BIOLOGICAL SCIENCE CURRICULUM STUDY (BSCS); THE NATIONAL SCIENCE TEACHERS ASSOCIATION; THE CONCORD CONSORTIUM; THE EDUCATION DEVELOPMENT CENTER, INC.; TERC; EXPLORATORIUM, SAN FRANCISCO; AND THE NATIONAL SCIENCE EDUCATION LEADERSHIP ASSOCIATION

On behalf of the groups listed above which provide research and development to build the STEM infrastructure, and the instructional materials, professional development, and innovations in technology utilized by thousands of schools and students nationwide, we urge you to fund fiscal year 2006 K–12 programs at the National Science Foundation Education and Human Resources Directorate (EHR) at the fiscal year 2004 level of $944 million and provide $206 million in funding (the fiscal year 2004 level) for NSF's Elementary, Secondary and Informal Education (ESIE) programs.

Strengthening science and math education is a core mission of the NSF. NSF is the only Federal agency with both science and scientific education in its charter. It has the mandate, depth of experience, and well-established relationships to build the partnerships for excellence in K–12 STEM education. The programs in the NSF Education and Human Resources (EHR) directorate are designed to support and improve U.S. STEM education at all levels and in all settings (both formal and informal). These programs are unique in their capacity to move promising ideas from research to practice, to develop new and improved materials and assessments, to explore new uses of technology to enhance K–12 instruction, and to create better teacher training techniques. NSF's highly-regarded peer review system that enlists leading scientists, mathematicians, engineers, and academicians to improve K–12 STEM education programs is at the center of this education improvement infrastructure.

The fiscal year 2006 administration budget request recommends major cuts to the Education and Human Resources Directorate, largely to elementary and secondary education programs. It appears these reductions are part of a policy decision to significantly pare the NSF role in program implementation, allowing work in this area to migrate to the Department of Education.

Research, education, the technical workforce, scientific discovery, innovation and economic growth are intertwined. To remain competitive on the global stage, we must ensure that each remains vigorous and healthy. That requires sustained investments and informed policies. If NSF ceases to fulfill its educational mission of stimulating innovations and building capacity in our education systems, then that withdrawal would leave a critical gap in applied research and development and the infrastructure necessary to effect changes to K–12 STEM education that could not easily be rebuilt.

Unlike the NSF, the National Institutes of Health, or NASA, the U.S. Department of Education is not a research or development institution. The NSF has the capacity to incorporate the best from both the science and education R&D communities and can enlist scientists, academicians and researchers in a peer review process that generates and tests innovations in science-related disciplines for education. Unlike the Department of Education, the NSF has the ability to tap into basic cognitive research, fold in new content and new ways of teaching this content from the disciplines, and explore new technologies for the delivery of professional development and for assessing teachers and their students.

Science education is unique because it is concerned with the special character of science and its related disciplines—it is at once a body of knowledge and a dynamic questioning activity. Because of the nature of science it is important to have scientists involved in critical questions of science education. It was the recognition of this interdependence between scientists and the science education enterprise that drove the identification of science education as a key part of the NSF agenda when the agency was founded. This connection will be lost if funding for the NSF Education and Human Services Directorate is reduced or if the responsibility for science education migrates to the U.S. Department of Education.

Here is a small sample of the many K–12 science education programs funded by the National Science Foundation. These K–12 programs—and many similar science education innovations yet to come from the NSF—will be crippled or lost without sustained funding to the NSF Education and Human Resources Directorate.

—NSF supported the development of the Centers for Learning and Teaching, which has resulted in partnerships between 15 major universities and non-profit research organizations. The CLTs are currently creating new knowledge for science education and developing new leadership for science and mathematics by producing 400 new Ph.D.s in science and mathematics education. One of these centers, the Center for Informal Learning and Schools, has worked with over 100 museum educators from 50 museums to create stronger partnerships between museums and schools and represents the first serious examination of the opportunities to better coordinate these two educational systems. These centers, which study critical issues in mathematics and science such as equity, assessment, curriculum and teacher development, demonstrate the power of using the NSF approach of field initiated research centers.

—NSF supported a number of technology-based innovations such as Microcomputer Based Labs, Molecular Workbench, and Handhelds in Education.

—*Microcomputer Based Labs*.—The idea of attaching electronic sensors to computers for real time data collection and analysis in education was invented in an NSF-funded project called Microcomputer Based Labs (MBL). This idea was directly inspired by the use of such sensors in science research, and NSF understood the importance of applying these ideas to education. This project spawned a small industry that now has seven vendors that offer MBL products to education in grades 3–14; an estimated 10 percent of all science teaching labs in grades 9–14 use some MBL.

—*Molecular Workbench*.—This is a sophisticated modeling package developed under several NSF grants that makes the atomic and molecular world easily accessible to students in grades 7–14. This is now built into hundreds of educational activities and is use nationwide. Based on software used in scientific research, the Molecular Workbench would not have been developed without the kind of bridge between science and science education that the NSF provides.

—*Handhelds in education*.—The idea of using handheld computers in the classroom was a novel idea to Palm when a team of educators who were leaders of an NSF-funded center visited them in 1995. The subsequent development of educational applications and real-time data collection for handhelds was

seeded by grants and a contest sponsored by this center. Handhelds are now one of the hottest ideas in educational technology.

—NSF supported the creation of an elementary school science support infrastructure through the creation of 5 national centers focused on improved teacher development in science. One of these centers, the Exploratorium Institute for Inquiry, has worked with improving the skills of science teacher development staff in over 200 districts in 39 States. These centers represented a critical partnership of scientists, science educators and educational researchers and demonstrate a quality that could only have been produced through the rigorous NSF peer review process.

—NSF supported the development of eight national Science and Mathematics Implementation and Dissemination Centers. Two of these centers, the EDC K–12 Science Curriculum Dissemination Center and the EDC K–12 Mathematics Curriculum Center, have provided high-quality instructional materials to school districts nationwide, including those that are rural and isolated, serve high populations of poor students, or have limited access to research-based mathematics and science education efforts. The Centers have worked in all 50 States, reaching more than 1,000 districts. The combination of services-seminars, resource materials, technical assistance, and outreach-offered by the Centers has been found to contribute significantly to districts' efforts to improve their mathematics and science programs.

—NSF supported the creation of Insights: An Elementary Hands-on Inquiry Science Curriculum, one of three NSF-funded research-based elementary programs that have reached more than 15 percent of the elementary school population. For example, Insights is in use in more than 1,000 school districts nationwide and has been translated into both French and Spanish for use in France, Colombia, and several other countries. The Insights materials have been favorably reviewed by Expert Panels assembled by NSF, as well as by the U.S. Department of Education (ED). Insights are an example of the kinds of high quality instructional materials that result from cross-pollination between scientists and educators encouraged by NSF.

—NSF supported the Using Data Project, which draws on a decade's worth of development of validated data-collection instruments from prior NSF-funded projects, allowing a rigorous process for school or district level data analysis and a step-by-step plan for making decisions and taking action based on those data for instructional improvements in mathematics and science education. Canton City middle schools have doubled their proficiency in mathematics on the Ohio State test from 2003–2004 by using a unique approach to data-driven decision-making pioneered by TERC.

—NSF supported the establishment of the Center for Urban Science Education Reform (CUSER), which focused on providing professional development and technical assistance for 22 school districts across the country that were implementing standards-based science programs for the first time. CUSER responded to a national need to address science education in urban schools and served more than 30 of the Nation's largest and poorest urban school districts. NSF's support served as a catalyst for directing resources and attention to a nationally neglected equity issue-bringing high quality science instruction to inner-city students.

—NSF supported Investigations in Data, Number and Space K–5 mathematics curriculum, developed by TERC and published by Scott-Foresman, and now in classroom sets in 14 percent of elementary schools nationwide. Students using reformed-based elementary curriculum, including Investigations, consistently scored higher than students in matched comparison groups using more conventional curriculum in a tri-State study on State-mandated standardized tests. An ARC Center study included outcomes on more than 100,000 students and all statistically significant differences favored the reform students, including the Iowa Test of Basic Skills. The superior results hold across all student racial and income groups.

—NSF supported the development of the first subject specific (science) new teacher mentor program at the Exploratorium Teacher Institute that has resulted in an increase in the first 5-year retention rate for new teachers from the traditional 50 percent to 90 percent. This required the developmental funding of innovative ideas that is only available from an agency like NSF.

—NSF supported the creation of the on-line Masters Degree Program in Science Education jointly developed by TERC and Lesley University. Teachers enrolled in the online courses outperformed teachers taking the same courses on-campus—in terms of science learning, understanding of scientific inquiry, and les-

son planning. In addition, the online students spent on average about 2 hours per week more on the course than the on-campus students.

PREPARED STATEMENT OF THE AMERICAN SPORTFISHING ASSOCIATION

The American Sportfishing Association (ASA) recommends the following as the subcommittee considers appropriations for NOAA-Fisheries for fiscal year 2006. The American Sportfishing Association is a non-profit trade association whose 700 members include fishing tackle manufacturers, sport fishing retailers, boat builders, State fish and wildlife agencies, and the outdoor media.

The ASA makes these recommendations on the basis of briefings with agency staff and from years of experience with fisheries management in this Nation. It is important to note that sportfishing provides $116 billion in economic output to the economy of the United States each year.

An important but often under-represented NOAA constituency is the Nation's 44 million sportfishing anglers, who collectively provide $116 billion in economic impact each year to the U.S. economy. The importance of adequately including this group and their activities in management decisions cannot be overstated. Sportfishing in marine waters alone provides a $31 billion economic impact to the Nation's economy.

HABITAT PROGRAMS

Federal resource agencies are dependent on the assistance of volunteers and matching funds from the private sector to accomplish habitat restoration goals. NOAA's Restoration Center Community-based Restoration Program is a premier example of a Federal agency providing funds that are matched by non-Federal monies to accomplish habitat restoration that would otherwise be accomplished at a greatly diminished scale. For example, the FishAmerica Foundation, one of the NOAA Community-based Restoration Center program partners matches NOAA funds up to five times with its funds, funds of others, and in-kind matching from others at project sites. The President's request of $15.2 million is appreciated, but we request the committee increase funding for this valuable program to $20 million for fiscal year 2006.

RECREATIONAL FISHERIES

With 10 million participants and 91 million fishing days, saltwater recreational fishing is the fastest growing segment of sportfishing in the United States. The Association remains disappointed in the inadequate attention that NOAA-Fisheries invests in recreational angling. Sportfishing in marine waters alone provides $8.1 billion in salaries and wages to nearly 300,000 wage earners in coastal areas.

Good socio-economic information is critical for effective marine resources management efforts, and the ASA applauds the administration's requested increase of $5.5 million (for a total of $9.6 million) for additional economic and social science research, data collection and analysis. The ASA asks Congress to assure that NOAA-Fisheries utilizes this money for assessment of impacts associated with recreational as well as commercial fishing activity and provides adequate data for sportfishing in marine waters.

The ASA proposes a nationwide stewardship program designed to enhance sustainable marine recreational fishing through cooperative research, public awareness, and development of technology and techniques. A partnership between government, the sportfishing industry and recreational anglers, the program will direct and fund research aimed at reducing unintended mortality from recreational fishing. The primary purpose of such a project is to fund research on ways to reduce mortality in catch-and-release recreational fishing. A secondary purpose of the project is to fund outreach programs aimed at promoting smart fishing techniques and gear. Based on the long history of conservation by anglers and the sportfishing industry, the ASA feels it is necessary to give anglers additional opportunities to help preserve their long-treasured marine resources. The ASA asks the committee to provide $500,000 for the initial organization of this project and direct these funds to NOAA's recreational fishing office.

The ASA urges Congress to remind NOAA-Fisheries of the opportunities associated with the increasing popularity of saltwater recreational fisheries, and NOAA-Fisheries should direct suitable resources to their conservation partners to better manage these resources.

STOCK ASSESSMENT AND MONITORING

NOAA-Fisheries has not fully demonstrated an ongoing and comprehensive commitment to modernization and improvement of fisheries stock assessment and management of marine systems. It will take a sustained commitment on the part of the administration, Congress and partner agencies to ensure that new these initiatives are in place, sustained and effective over the long-term.

The ASA recognizes and supports the fiscal year 2006 President's budget request to increase funds for fisheries stock assessments and management by $4.5 million to a total of $25.397 million, but the NOAA-Fisheries stock assessment program needs to build to the $100 million level over the next 5 years if it is to be effective in providing data for proper management of marine stocks. The ASA recommends a total increase of an additional $10 million dollars to begin building this program to its needed level. Funds for stock assessments could be allocated by the marine sanctuaries program. This program is at times in conflict with proven management measures and the ASA believes it is more important to first establish a solid stock assessment program before experimenting with the theoretical concept of marine sanctuaries.

ANADROMOUS FISHERIES ACT

The ASA remains perplexed and troubled over the continuing low level of funding for implementation of the Anadromous Fisheries Act. The Anadromous Fisheries Act budget line has traditionally been used to fund activities that cannot be supported through other Federal and State funds, and the fisheries management community has been unable to address the needs of most anadromous fish stocks due to a severe lack of resources. Therefore, the ASA urges Congress to fund the Anadromous Fisheries Act grants to States at $8 million.

PREPARED STATEMENT OF THE SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM) EDUCATION COALITION

On behalf of the science, technology, engineering, mathematics, higher education and business groups listed below, we urge you to continue the Federal commitment to K–12 science, technology, engineering, and mathematics (STEM) education. In particular, we urge you to increase spending for the National Science Foundation (NSF) to a level that would permit $200 million in funding for the NSF Math and Science Partnership (MSP) program, and restoration of funding for the NSF Education and Human Resources Directorate to fiscal year 2004 levels.

The current fiscal year 2006 budget proposes to cut education programs at the NSF by 12 percent ($737 million, down from $841 million in fiscal year 2005). Programs under the Elementary, Secondary and Informal Education Division would be cut 22.6 percent ($140 million, down from $181 million in fiscal year 2005), and the Research, Evaluation, and Communication (REC) budget would be cut by more than 43 percent ($33 million, down from $59 million in fiscal year 2005). The fiscal year 2006 NSF Math and Science Partnerships (MSPs) would see a 24 percent cut to $60 million.

In this tight budget environment, we understand that difficult choices must be made. Increased and continued investment in these programs is critical, however, if we want to ensure that our students—the future scientists, technologists, engineers, mathematicians, workers, and others responsible for our Nation's future innovations, our national security, our economy, and our quality of life—receive a world class education in the sciences and mathematics, and that we have the research base essential to improving it.

The NSF MSPs are working to develop scientifically sound, model reform initiatives that will improve teacher quality, develop rigorous curricula, and increase student achievement in these areas. These programs are not duplicative of the U.S. Department of Education Math and Science Partnerships; in fact, without one program, the other program is significantly weakened. The State-based ED MSPs are not capable of producing the needed research in these areas and look to the NSF MSPs to develop proven models and tools necessary to enhance teacher quality and student achievement.

Other programs in the NSF Education and Human Resources (EHR) directorate, such as Instructional Materials Development, the Teacher Professional Continuum, and the Centers for Learning and Teaching, are designed to support and improve both formal and informal STEM education at all levels. These programs are unique in their capacity to move promising ideas from research to practice, to develop new

and improved materials and assessments, to explore new uses of technology to enhance K–12 instruction, and to create better teacher training techniques.

NSF's peer review system that enlists leading scientists, mathematicians, engineers, and academicians to improve K–12 STEM education programs is at the center of this education improvement infrastructure. The NSF peer review model is highly regarded in the scientific community and the programs produced under this approach are developed, tested, and evaluated to insure their efficacy.

American Association of Physicists in Medicine; American Association of Physics Teachers; American Astronomical Society; American Chemical Society; American Educational Research Association; American Geological Institute; American Geophysical Union; American Institute of Aeronautics and Astronautics; American Institute of Biological Sciences; American Institute of Physics; American Meteorological Society; American Physical Society; American Physiological Society; American Society of Agronomy; American Society of Civil Engineers; American Society of Mechanical Engineers; American Sociological Association; ASEE Engineering Deans Council; Association of State Supervisors of Mathematics; Biological Sciences Curriculum Study (BSCS); Center for Educational Outreach, Whiting School of Engineering, Johns Hopkins University; Chabot Space & Science Center; Crop Science Society of America; Delta Education; Education Development Center, Inc.; Exploratorium; Institute of Electrical & Electronics Engineers-USA; Institute of Food Technologists; International Technology Education Association; Mathematical Association of America; Michigan State University; Museum of Science, Boston; National Association of Biology Teachers; National Council of Teachers of Mathematics; National Education Knowledge Industry Association; National Science Teachers Association; Optical Society of America; Project Lead the Way; Society of Automotive Engineers; Society of Women Engineers; Soil Science Society of America; SPIE—The International Society for Optical Engineering; Technology Student Association; TERC; The Association of American Geographers; The Federation of Behavioral, Psychological, & Cognitive Sciences; Triangle Coalition.

PREPARED STATEMENT OF THE MARINE FISH CONSERVATION NETWORK

The Marine Fish Conservation Network (MFCN) is pleased to share its views regarding certain National Marine Fisheries Service (NMFS) programs in the National Oceanic and Atmospheric Administration's (NOAA) fiscal year 2006 budget request. We ask that this statement be included in the hearing record for the fiscal year 2006 Commerce, Justice, State, and the Judiciary Appropriations Bill. We are requesting a budget increase of $51 million from the administration's requested $77.7 million for NMFS programs in the fiscal year 2006 budget to be allocated for stock assessments, fishery observer programs, essential fish habitat, vessel monitoring systems, bycatch reduction, cooperative research and ecosystem-based management as described below.

MFCN is a national coalition of more than 170 environmental organizations, aquariums, commercial and recreational fishing associations, and marine science groups dedicated to conserving marine fish and promoting their long-term sustainability. We greatly appreciate the funding this subcommittee has provided for marine fish conservation programs within NMFS in the past and we look forward to working with the subcommittee to enact adequate levels of funding for the coming fiscal year.

In 2004, the presidentially appointed U.S. Commission on Ocean Policy (USCOP) released a report, which outlined a series of recommendations designed to enhance and reform the current Federal fisheries management system. The congressional response to this call-to-action to protect the health and long term sustainability of our ocean resources has been heartening, and a bipartisan effort is currently underway to address the most critical issues identified by the USCOP. Unfortunately, the President's fiscal year 2006 NOAA budget request does not provide adequate new funding for many of the priority program areas identified by the USCOP. The NMFS funding request for fiscal year 2006 amounts to a 12 percent reduction (almost $100 million) in funding for NMFS. There are seven areas of the NMFS budget where we believe the requested funding levels need to be increased to help the agency fulfill its obligations as the Federal Government's fishery management agency.

STOCK ASSESSMENTS

President's Request.—Total of $25.4 million.

MFCN Request.—Total of $30 million.

The USCOP noted that "accurate, reliable science is critical to the successful management of fisheries." While we are pleased that the administration requested an

almost $5 million increase in the expanding stock assessments line item, we are concerned that funding in this area is insufficient. The NOAA Office of Science & Technology estimates that the funds needed to fully assess all commercially important stocks total more than $300 million. The administration's line item request for a $2 million increase to strengthen living marine resource monitoring would provide for an estimated 250 additional charter-vessel days at sea (DAS)—an increase of approximately 10 percent over the fiscal year 2005 level of 2,500 days. Still, NOAA estimates that 7,566 DAS are needed to fully modernize and expand its stock assessment capabilities. At the current level of funding ($20.5 million), there is a deficit of 5,066 days at sea, many of which are used to conduct stock assessments. The impact of this deficit is demonstrated by the fact that the status of only 33 percent of the 909 ocean fish populations managed by NMFS is currently known. This information void is due in large part to a lack of funding for basic research and stock assessments. An additional $4.6 million to the administration's request for $25.4 million to expand stock assessments, would further this essential work.

FISHERY OBSERVER PROGRAMS

President's Request.—Total of $26.0 million.
MFCN Request.—Total of $43.4 million.

Observer programs are vital to the sustainable management of our Nation's fisheries because they provide critical data on the amount and type of ocean wildlife killed due to fishing. While we commend the administration's efforts to expand and increase funding for Federal fishery observer and enforcement programs, the proposed level of funding of $26 million is not sufficient to address current management needs. The President's fiscal year 2006 budget request amounts to a $1.5 million increase overall from fiscal year 2005 funding levels, but funding for certain critical regions would be cut. In New England, a region plagued by chronic overfishing and mismanagement, the funding level for observers would be cut by $3.5 million from the fiscal year 2005 enacted level. We recommend that funding for the national observer program be increased but not at the expense of important regional programs such as New England. The $1.5 million requested increase for the Observers/Training line item will enable NOAA to employ observers in 41 fisheries. NMFS estimates that an additional 22 fisheries outside of the 41 with observers currently do not have observer coverage or have very low levels of coverage. The estimated total cost to implement a small "baseline" or "pilot-level" program to observe these 22 additional fisheries is approximately $17.4 million. Recognizing that a comprehensive nationwide observer program would demand a significant increase in funding, we recommend that Congress provide funding to initiate pilot programs in those fisheries currently without observer programs. We request that Congress appropriate $43.4 million to expand observer programs into all 63 managed fisheries and provide enhanced coverage for priority fisheries.

ESSENTIAL FISH HABITAT

President's Request.—Total of $4.7 million.
MFCN Request.—Total of $15 million.

Essential fish habitats (EFH) are those waters and substrate upon which fish depend for reproduction and growth. Land-based activities and destructive fishing practices threaten the viability of these habitats and the sustainability of the fish populations that depend on them. While the Sustainable Fisheries Act of 1996 gave NMFS a clear mandate to identify and protect EFH, too little has been done to protect these habitats. The President's budget request for fiscal year 2006 continues this trend of under-funding this critical element of sustainable fisheries management. While we support efforts to reduce fishing impacts on essential fish habitat, the President's fiscal year 2006 budget request of $500,000 to address this issue is inadequate. This level of funding is not sufficient for protecting the EFH for 909 federally managed fish stocks. The administration has also requested $999,000 to refine EFH designations. While this represents an increase from fiscal year 2005 enacted levels, this request does not provide the level of funding necessary to support the research and analysis needed to more accurately identify and define areas to be designated as EFH.

VESSEL MONITORING SYSTEMS

President's Request.—Total of $9.3 million.
MFCN Request.—Total of $18.3 million.

We commend the administration's commitment to establishing vessel-monitoring systems (VMS) to better manage our Nation's fishery resources. VMS are integral to enhancing data collection, improving enforcement capabilities and ensuring great-

er safety at sea. VMS programs assist fishery managers and enforcement officials by providing information when a vessel unlawfully enters a closed area or is fishing beyond the end of a regulated fishing season. The USCOP highlighted the importance of VMS in its final report and recommended that fishery managers and enforcement officials "maximize the use of the Vessel Monitoring System (VMS) for fishery-related activities by requiring that VMS with two-way communication capability be phased in for all commercial fishing vessels receiving permits under federal fishery plans, including party and charter boats that carry recreational fishermen, incorporating VMS features that assist personnel in monitoring and responding to potential violations, and identifying state fisheries that could significantly benefit from VMS implementation." Of the $9.3 million requested by the administration, $4.8 million is needed to support and maintain the existing infrastructure of the system. The remaining $4.5 million is to cover the costs of purchasing and installing units on approximately 2,000 additional vessels. There are an estimated 10,000 commercial fishing vessels in the United States, therefore to ensure more widespread implementation of VMS programs, we recommend funding be increased $18.3 million.

BYCATCH REDUCTION

President's Request.—Total of $2.8 million.
MFCN Request.—Total of $13 million.

Bycatch is the incidental catch of non-target species and represents a significant portion of overall fish mortality. In order to ensure the long-term sustainability of our Nation's fish populations, marine mammals and other protected species, it is crucial that programs aimed at reducing wasteful bycatch receive adequate funding. The President's budget request for fiscal year 2006 for the Reducing Bycatch Initiative is $2.8 million, almost $1 million less than the current funding level of $3.7 million and $2 million less than fiscal year 2004 funding levels. Greater funding is needed to develop and test bycatch reduction technologies, to improve cooperative research activities and coordination with fishermen, to disseminate information and to hire additional observers. We recommend that Congress provide $13 million in fiscal year 2006 for the Bycatch Reduction Initiative to ensure that measurable progress is made towards decreasing bycatch and bycatch mortality.

COOPERATIVE RESEARCH

President's Request.—Total of $9.5 million.
MFCN Request.—Total of $20 million.

Cooperative research programs provide an important opportunity for fishermen and scientists to work together to investigate and develop new fishery technologies, to assess the status of fish stocks and their associated habitats, and to share their individual expertise. Involving fishermen in the scientific process also reduces industry skepticism regarding the integrity and veracity of the science upon which management measures are based. The USCOP recommended that Congress increase support for an expanded, regionally based cooperative research program in NOAA that coordinates and funds collaborative projects among scientists and commercial and recreational fishermen. (USCOP Recommendation 19–9) The administration's requested budget for fiscal year 2006 cuts funding for cooperative research by almost $10 million. Investing in cooperative research programs will bolster the credibility of science and enhance the rapport between scientists and fishermen. As such, funding for cooperative research should be maintained at $20 million for fiscal year 2006.

ECOSYSTEM-BASED MANAGEMENT

President's Request.—Total of $0.
MFCN Request.—Total of $4 million.

In 2004, the USCOP noted that "[t]o be effective, U.S. ocean policy should be grounded in an understanding of ecosystems, and our management approach should be able to account for and address the complex interrelationships among the ocean, land, air, and all living creatures, including humans and consider the interactions among multiple activities that affect entire ecosystems." To ensure the long-term health and productivity of marine ecosystems, the Commission also advised fishery managers to move away from the traditional single-species management strategy and towards an ecosystem-based approach to management. (USCOP Recommendation 19–21) This commitment to ecosystem-based management was echoed in the U.S. Ocean Action Plan, the Bush administration's response to the USCOP report. Despite pledges from the administration to initiate efforts to transition to a more

ecosystem-based approach to marine resource management, the requested budget for fiscal year 2006 contains no funding for ecosystem-based management.

In fiscal year 2004, Congress allocated approximately $2 million for NMFS to conduct ecosystem pilot projects in four regions including the South Atlantic, the Mid-Atlantic, New England and the Gulf of Mexico. Each of the four regions received a grant of $225,000 to address ecosystem governance at the fishery management council level. Remaining funds were used to conduct technical workshops and develop quantitative decision support tools. While the ecosystem pilot projects are a step in the right direction, additional funding is needed to build upon existing projects and expand the pilot programs into other regions. Increasing funding for ecosystem-based management to $4 million would ensure that the financial resources necessary to develop programs and initiatives that are consistent with the goal of ecosystem-based management are available to the eight designated Federal fishery management regions.

Thank you for considering our request for increasing funding for these important fishery management programs. These increases will go a long way toward ensuring that NMFS can better manage and protect our Nation's fish resources now and for the future.

PREPARED STATEMENT OF THE NAVAJO NATION

INTRODUCTION

Chairman Shelby, Ranking Member Murkowski and members of the subcommittee, thank you for this opportunity to provide comments on behalf of the Navajo Nation with regard to the President's proposed fiscal year 2006 Budget for funding Indian public safety programs. My name is Hope MacDonald-Lone Tree.[1] I am an elected delegate to the Navajo Nation Council and serve as the Chairperson of the Public Safety Committee of the Navajo Nation Council. I also serve as the Navajo Nation representative to the joint Bureau of Indian Affairs/Tribal Budget Advisory Council's Workgroup on Indian Law Enforcement, a national workgroup that advocates for Indian law enforcement budgetary needs.

As described in detail below, the public safety situation in Indian Country in general, and on the Navajo Nation in particular, is dire. We are happy to see that the President's proposed budget provides some additional funding to address this situation. However, we are concerned that the funding is still insufficient, once it trickles down to the Navajo Nation, to even begin to achieve an acceptable level of public safety on our vast reservation.

APPROPRIATIONS NEEDS

Immediate and Urgent Navajo Nation Need ($3,133,280).—In the late 1950's and early 1960's, the Navajo Nation constructed six detention facilities. The Tuba City detention facility suspended its operation in Winter 2004 due to crumbling ceilings and walls, exposed conduits and weakening foundations. In January of this year, the facility suffered an electrical fire and has subsequently been condemned. Other facilities in Chinle, Kayenta and Dilkon are in similar shape, overcrowded or non-existent. The Navajo Nation seeks funding for four modular bunkhouse buildings at a cost of $783,320 each, or a total cost of $3,133,280, to address an urgent need to provide adequate and decent inmate housing.

Permanent Navajo Facilities Funding—Planning and Design ($1 Million Per Facility for Seven Facilities).—The Navajo Nation is planning to construct seven permanent detention facilities in three phases. Phase I involves Tuba City, Chinle and Crownpoint; Phase II involves Shiprock and Dilkon; and Phase III involves Kayenta and Fort Defiance. The estimated cost for planning and design of each facility is approximately $1 million, for a total planning and design cost of all facilities of $7 million.

PUBLIC SAFETY—A GOVERNMENT'S FIRST OBLIGATION

The first thing that a people demand of their government is that it act to ensure the public safety. A crime-free and safe environment is essential to the vitality of any community. It is also critical to the development of an economic base, including attracting investment as well as retaining skilled workers who have the option of living where they please. In his 2005 State of the Union Address, President Bush

[1] Hope MacDonald-Lonetree, Chairperson, Public Safety Committee, Navajo Nation Council, Window Rock, AZ.

proclaimed, "Our third responsibility to future generations is to leave them an America that is safe from danger, and protected by peace. We will pass along to our children all the freedoms we enjoy—and chief among them is freedom from fear." We agree with the President, but because of the Federal Government's failure to provide adequate resources for public safety on the Navajo Reservation, too many Navajo families do not enjoy freedom from fear.

The Navajo Nation government takes its responsibility to address the public safety needs of its citizenry very seriously. Unfortunately, we face great challenges that principally arise out of the poor economic conditions on the Navajo Nation. Some of these conditions can be directly traced to actions by the Federal Government in violation of its trust responsibility to the Navajo Nation. Many of them can be corrected if the Federal Government fully lived up to its trust responsibility, which includes funding a basic level of public safety services within our reservation boundaries.

The Navajo Nation Public Safety Division is responsible for an area the size of West Virginia, with a resident population of approximately 200,000 and, with tourism, a transient population of hundreds of thousands of non-Indians every year. The Navajo Nation polices this area with a small force of officers (see discussion below). In addition to responding to community incidents, the Navajo police force also provides protection to major dams and power plants, as well as hundreds of miles of interstate highways, high voltage transmission lines and gas pipelines. On 9/11, Navajo police officers moved quickly to secure as many of these high-value facilities as our limited resources would allow.

THE HIGH INCIDENCE OF VIOLENT CRIME IN INDIAN COUNTRY

Although violent crime has declined throughout the United States in recent years, tragically there is no evidence of a decline in Indian Country. According to DOJ statistics, Native men and women are still more than twice as likely to be a victim of a violent crime—whether you are talking about child abuse, sexual assault, homicide, or assault—than any other racial or ethnic group. Native youth are significantly more likely to be the victims of rapes, assaults, shootings, beatings and related crimes than their counterparts. Nearly a third of all American Indian and Alaska Native women will be the victim of sexual assault in their lifetime, the highest rate of any racial or ethnic group. It takes no imagination whatsoever to understand the scarring impact of these high crime rates not only on the victims, but also on their communities. In the Native way, when one person is harmed, everyone is harmed. Adequate funding for the provision of basic public safety services is an essential part of any strategy to reduce the Indian Country crime rate and provide the same safe and secure environment for Native peoples that is enjoyed by most other Americans.

The U.S. Attorney's Office in Flagstaff estimates that violent crime on the Navajo reservation is six times higher than the national average. Increased crime includes alcohol and drug abuse, domestic violence and child sexual abuse.

We cannot address domestic violence on Navajo because we cannot separate the abuser from the victim due to lack of detention facilities—and the abusers know that.

We cannot protect our children from sexual predators. Just in one community, there were 100 reported cases of child sexual abuse in 1 month. We cannot protect our families without somewhere to put the perpetrators threatening our communities.

Navajo Nation averages one officer for every 4,000 people, compared to the national average of three officers per 1,000 people.

Our officers often perform alone, without partners, and without radio communication for backup. In one incident I'd like to share, an officer responded to a call and found a man beating his wife and family. The wife did not want him arrested. She knew that he would not be detained long due to the lack of facilities, and feared that he would return even more violent. Because she did not want him arrested, she attacked the officer herself and tried to get his gun. The officer managed to get away, leaving the abuser with his family.

In another sad incident, a young boy was arrested for attacking his brother. After a short hour in jail, he was let out. A week later, he was arrested for attacking his sibling. He was again released after a short time in jail. He was later arrested for stabbing his mother.

Criminal incidents of recidivism such as that one are very high on the reservation all due to the factors I have described: criminals are allowed to return to their community without incarceration; we cannot incarcerate criminals without putting them at significant physical and health risk; in many instances, tribal court is just a re-

volving door for many criminals; and criminals and their victims have a complete disregard for our criminal justice system. Communities across the reservation and neighboring towns are at risk. Public safety officers are at risk.

THE SHOCKING STATE OF INDIAN DETENTION FACILITIES

This past September, the DOJ Office of Inspector General published its study of Indian detention facilities entitled "Neither Safe Nor Secure—An Assessment of Indian Detention Facilities" (Report No. 2004–I–0056). The Inspector General's office was shocked by what it found. The Inspector General's report was only the latest in a series of reports and testimony about the decrepit condition of Indian Country detention facilities.

In the late 1950's and early 1960's, the Navajo Nation constructed six detention facilities. Of our many urgent public safety needs, our highest priority is to replace or fully renovate these out-of-date and dilapidated facilities. For example, the Tuba City detention facility suspended its operation in Winter 2004 due to crumbling ceilings and walls, exposed conduits and weakening foundations. In January of this year, the facility caught fire due to an electrical short. Other facilities in Chinle and Shiprock are in roughly the same poor condition. Our remaining facilities at Kayenta, Crownpoint and Window Rock are only a few years away from joining Tuba City as facilities not fit to house animals, much less human beings. The BIA does not operate these facilities as the Navajo Nation, pursuant to the Indian Self Determination and Assistance Act, has contracted to carryout BIA law enforcement programs on the reservation. However, the same funding shortfalls that have led to problems in BIA-operated detention facilities have affected the Navajo Nation-operated detention facilities. Just to bring our detention facilities up to the national standard will require $140 million for Navajo.

HISTORIC FUNDING LEVELS FOR INDIAN COUNTRY PUBLIC SAFETY PROGRAMS—A QUIET CRISIS?

In July 2003, the U.S. Commission on Civil Rights released a detailed report on Federal funding and unmet needs in Indian Country entitled "A Quiet Crisis". The Commission engaged in a comprehensive analysis of Federal funding of Native programs across all departments, concluding that the Federal Government was not meeting its trust obligation to Indian tribes. Among the report's many findings, was that ". . . per capita federal spending on Native Americans was higher than spending for the general population between 1975 and 1980. Between 1980 and 1985, however, Native American expenditures declined while those for the general population increased, until approximate equivalency. After 1985, per capita Native American and general population spending did not increase at the same rates, resulting in a wide gap."

The Commission found that "[p]erhaps one of the most urgent needs in Indian Country is access to basic law enforcement . . .". The Commission noted that the level of police coverage in Indian Country is much lower than for other areas of the United States.

The Commission commented at length on the sporadic and minimal levels of funding for tribal courts, as well as on the substandard conditions at over-crowded tribal detention facilities, where funding also has been scarce. Despite some increases in funding between 1998–2003, the Commission noted a downward trend ever since. The Commission concluded: "Funding for criminal justice systems in Indian Country remains insufficient to meet the immediate needs of these communities, much less establish a framework for eventual self-sufficiency. The potential for even modest progress will be undone if funding cutbacks continue as they have in recent years."

DEPARTMENT OF JUSTICE

The President has proposed consolidating a number of Indian programs in the Justice budget into one flexible COPS/OJP Indian Grant program funded at $51.6 million. In fiscal year 2005, for example, Indian programs were funded as follows: Tribal courts, $7.9 million; Alcohol and substance abuse, $4.9 million; Indian Prison Grants, $5 million; and Indian Alcohol & Crime Demonstration Program, $5.4 million. Based on discussions with DOJ budget personnel, historical funding for Indian programs at DOJ is as follows:

FUNDING FOR DOJ INDIAN PROGRAMS

[In millions of dollars]

	Amount
2004 Actual	49.4
2005 Enacted	47.4
2006 Request	51.6

The increase from 2004 to 2006 is 4.5 percent or about 2.25 percent on a yearly basis. This increase barely keeps pace with inflation. The President has proposed to nearly eliminate the COPS program, as well as several other programs that tribes have accessed. It is not clear from the budget documents to what extent these cuts would impact Indian tribes.

WORKING TOGETHER THE CRISIS IN INDIAN COUNTRY PUBLIC SAFETY CAN BE ADDRESSED

Thank you for this opportunity to share the concerns of the Navajo Nation. The Navajo Nation looks forward to working closely with the committee to address public safety concerns in Indian Country. Together we can assure a better life for America's first peoples. Please do not hesitate to contact me if you have any questions or if we can be of any assistance.

PREPARED STATEMENT OF THE NATURE CONSERVANCY

Mr. Chairman, thank you for the opportunity to offer the recommendations of The Nature Conservancy on the fiscal year 2005 budget for the National Oceanic and Atmospheric Administration (NOAA).

The Conservancy recommends the following funding levels for programs with which we work closely and that make important and substantive contributions to effective and lasting conservation of coastal and marine biological diversity:

	TNC Recommends	Change From Fiscal Year 2005
NOAA Oceans and Coasts (NOS):		
Coastal Zone Management—Grants to States	$90,000,000	+$23,000,000
Coastal Services Center	23,000,000	+328,000
Pacific Services Center	2,300,000	+50,000
Coastal Change Analysis	500,000	(1)
Coastal Storms[2]	2,903,000	+403,000
NERRS—Operation	22,000,000	+5,600,000
NERRS—Acquisition/Construction	15,000,000	+6,000,000
Coastal and Estuarine Land Conservation Program	60,000,000	+17,700,000
National Marine Sanctuaries Program—Operation	51,000,000	(1)
National Marine Sanctuaries Program—Acquisition/Construction	10,000,000	+144,000
Coral Reef Conservation	30,500,000	+2,500,000
NOAA Fisheries (NMFS):		
Fisheries Habitat Restoration/Community-based Restoration	20,000,000	+1,000,000
Pacific Salmon Recovery Program[2]	90,000,000	(1)
Cooperation with States (ESA §6 grants to States)	5,000,000	+4,100,000
NOAA Satellites (NESDIS): Coral Reef Monitoring[2]	737,000	+37,000
NOAA Research (OAR)—Global Change Program:		
Sector Applications Research Program (SARP)[2]	2,600,000	(2)
Regional Integrated Science and Assessment (RISA)[2]	4,800,000	+800,000

[1] No change.
[2] Requested level equal to the President's fiscal year 2006 budget request.

The Nature Conservancy implements a growing number of site specific marine conservation programs in all U.S. coastal and Great Lakes States as well as in 28 other nations. A science-based, nonprofit organization, the Conservancy works in collaboration with local residents, partner organizations, government agencies and other stakeholders to identify, protect and manage significant habitats and natural systems. We employ pragmatic, non-confrontational strategies to reduce threats to biodiversity and ensure the long-term health and function of ecosystems.

The Conservancy works to identify priorities for coastal and marine conservation through marine ecoregional plans. We identify present and likely future threats to

marine biological diversity before attempting to identify appropriate strategies for conservation. At over a hundred marine sites around the world, the Nature Conservancy has used a variety of strategies for marine conservation including habitat restoration of important nursery and spawning areas, removal of invasive species, coastal land acquisition, private conservation of submerged lands, elimination of destructive practices, establishment of protected areas, management of extractive marine resources activities, and reduction of nutrient and toxic inputs to coastal systems. No single strategy works everywhere and at every site, multiple conservation approaches are needed. The selection of appropriate approaches depends on the biological, socioeconomic, and political circumstances at each site.

The National Oceanic and Atmospheric Administration (NOAA) is an important partner to the Conservancy in many aspects of our approach to conservation:

—We rely upon NOAA's data as well as their research and monitoring of coastal and marine systems and have several shared priorities on which we collaborate.

—We rely on their programs that support site-based conservation—those that fund activities such as conservation and restoration and those that provide for management of coastal and marine systems.

—Finally, their support for State and local implementation and educational programs help to ensure that human capacity exists to address environmental management issues at the scale at which they are best managed.

RESEARCH, MONITORING, AND OBSERVATIONS

Federal investments in marine science have decreased over the past decade and information that is collected is often not available to ocean and coastal resource managers grappling with the difficult task of balancing competing uses of marine resources. The highest priority in national ocean and coastal research programs should be the science and information needs of resource managers including national, State and local coastal agencies. There is an urgent need for better information that is readily available to guide the management decisions affecting nearshore ecosystems where habitat loss and intensive use now threaten the survival of living marine resources. The Conservancy has worked closely with Coastal Service Center and NOAA's Coral Reef program on a number of shared interests. It is our experience that both programs support research and monitoring that directly addresses the needs of managers on the ground.

By supporting a wide variety of scientific work and partnering with a multitude of stakeholders, The Coastal Services Center (CSC) and the Pacific Services Center (PSC) have helped to forge new partnerships and increase our overall understanding of how the coasts work. For example, CSC has worked with the Conservancy to:

—fund regional planning in the Pacific Northwest to identify important habitats and design effective conservation strategies for biological diversity; and

—provide data, analysis, and mapping support for the Northwest Florida Greenway Partnership—a partnership between the Air Force, State of Florida, U.S. Fish and Wildlife Service, the Conservancy, and many others to manage development encroaching on the USAF training area and to protect vast forests and natural areas in Northwest Florida.

By maintaining a strong service orientation and working with partners like The Nature Conservancy, CSC and PSC consistently use Federal dollars for highest leverage results. The Coastal Storms program—which is led by CSC—is one of the first research programs to be fully integrated across NOAA and yields information that is valuable for understanding and predicting the impacts of coastal storms such as flooding and storm surges. The Coastal Change Analysis program looks at developing topographic/bathymetric maps of coastal areas and analyzing changes in coastal vegetation. This information will be invaluable for managing for disasters (such as tsunamis and hurricanes), regional and global climate changes, siting infrastructure development, understanding sediment budgets, and undertaking risk assessment and vulnerability assessments for coastal communities.

NOAA's Coral Reef Program seeks to support research and mapping oriented toward the needs of coastal managers. The Conservancy strongly supports maintaining the coral program's base budget at $28 million. A portion of the increase recommended, $500,000 would allow the program to continue to map U.S. coral reefs—a task that, astonishingly, has not yet been completed. Funding requested for NOAA's Satellite Service also is important for improving our understanding and predictions of how corals will respond under stress. This information will help managers focus their efforts on areas where it will do the most good.

Additionally, the Conservancy supports the work of NOAA's Global Change program, particularly the Sector Applications Research Program and Regional Integrated Science and Assessment. These programs support work to understand and

project the impacts of climate variability and change on ecosystems at various spatial and temporal scales; develop local, national and international strategies for adapting to climate change related to the management of natural resources and the ecosystems and functions supported by these systems; and, to assess and apply existing, state-of-the-art climate science to improve the management and conservation of natural resources, both today and in the future.

SUPPORTING SITE-BASED CONSERVATION

Marine and coastal ecosystems with the highest biodiversity value must be protected and restored. Marine ecosystems in our coastal zone face greater pressure from population growth and intensive land use than any other natural resource in the United States. These ecosystems provide significant benefits, protecting shorelines from erosion, serving as spawning and nursery grounds for commercial and recreational fisheries, cycling nutrients and removing pollutants. Yet, only small portions of the most productive ocean and coastal ecosystem have been protected in parks, preserves and sanctuaries.

The Conservancy believes that government and the private sector should devote substantially more resources to the permanent preservation of ocean and coastal ecosystems with the greatest biodiversity value. Federal and State governments should be encouraged to use the best available science to identify sites where ecosystem protection and restoration will have the greatest potential to protect biodiversity—and should be provided the resources to take action.

Specifically, the Conservancy would like to call to your attention two important programs. First, through NOAA's Coral Reef program and the U.S. Coral Reef Task Force, NOAA has undertaken a unique partnership with States and territories to develop locally based strategies to address threats to coral reefs at the local level. The administration has included the "Local Action Strategies" in the President's Ocean Action Plan and has requested funding for both NOAA ($1.5 million) and the Department of Interior ($1.2 million) in the fiscal year 2006 budget request to implement these plans. The program requires a 1:1 match, which will likely be waived for projects in the territories. However, one of the purposes of this program is to raise the profile of these needs to attract other non-Federal resources. The Conservancy recommends that NOAA's portion of this funding be provided in addition to their base funding.

The Nature Conservancy strongly supports the President's request for $90 million for the Pacific Salmon Recovery Fund which has gone to fund activities to protect and restore salmon habitat in western States. Generally, in most areas of the country, resources to undertake science and management to recover listed species are scarce. To address that need, the Conservancy requests $5 million for NMFS Protected Resources for Cooperation with the States to implement the Endangered Species Act. The $1 million provide each of the last 2 years has been extremely well received and additional funds would be similarly well-spent.

Finally, we would like to thank the committee for its support for the Community-based Restoration program. This program has an unparalleled record of getting funding to good projects on the ground, raising non-Federal contributions, and engaging communities in stewardship of their local resources.

PARTNERSHIPS, CAPACITY AND EDUCATION

The U.S. Commission on Ocean Policy included numerous recommendations for improving the way government manages numerous competing uses and conservation of coastal and marine resources. They also recognized that a shift to the governance that they envisioned would require new partnerships, enhanced human capacity, and education—not only to inform the public, but also to train the next generation of resource managers. The Conservancy is committed to working in partnership with NOAA, States, local governments, and our fellow stakeholders to take conservation actions that provide the most impact for the limited dollars that are available. Funding the people and programs that make this work happen is no less important than the money that accomplishes a restoration project, creates a refuge, or mitigates a threat on the ground. Investing in that infrastructure is a critical component of effective coastal and ocean management. The Nature Conservancy has a Memorandum of Agreement with NOAA and we work closely with a number of their programs to identify shared priorities, so that scarce resources are used in the most efficient and complementary way possible. Programs that support partnerships include:

—*NOAA's Coral Reef Program*.—$500,000 of the increase requested for this program would support coral conservation in the Western Pacific, including Palau and the Federated States of Micronesia. Many of the management strategies

being developed in Palau will have direct benefit and application in U.S. States in territories. For example, a coral reef protection model developed in Palau is now being used in Florida Keys National Marine Sanctuary.

—*Coastal Zone Management Act—Grants to States*.—State CZM programs are important to the management of coastal resources. The Conservancy works closely with States to set joint priorities for conservation and to protect and restore important coastal areas.

Thank you for this opportunity to inform the committee of the Conservancy's priorities in NOAA's fiscal year 2006 budget. I would be pleased to provide the committee with additional information on any of the Conservancy's activities described here or elsewhere.

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION

On behalf of the American Society for Engineering Education Engineering Deans Council (EDC), I would like to express appreciation for the opportunity to present testimony for the record on fiscal year 2006 appropriations for the National Science Foundation. I request that my testimony be made part of the record of the hearings on the fiscal year 2006 NSF budget. I want to begin by thanking the Chairman Richard Shelby and Ranking Minority Member Barbara Mikulski and all the other members of this subcommittee for their strong and continuing support for a robust budget for the National Science Foundation and for supporting the doubling of the NSF budget over 5 years. The NSF plays a vital role in supporting and advancing basic research in science and engineering and in developing the human capital needed to advance science and technology. Funding levels for the agency greatly impact engineering educators, as well as the Nation as a whole.

The Engineering Deans Council thanks the Congress and the administration for recognizing the importance of the National Science Foundation by enacting the NSF Authorization Act of 2002, which provides for doubling the budget of the National Science Foundation over a 5 year period. This Act represents a major milestone for the NSF and for the scientific community, because it authorizes raising the budget of the NSF from its fiscal year 2002 level of approximately $4.8 billion to the level of $9.8 billion in fiscal year 2007.

For fiscal year 2006 the EDC advocates raising the NSF budget above the fiscal year 2005 request of $5.75 billion, to $6.1 billion. Even in tough budget years, this kind of investment is critical to developing the human and technical infrastructure that will continue to be the basis of economic growth and security for the country.

The EDC encourages Congress to provide a strong appropriation for the NSF Math and Science Partnership program in fiscal year 2006, to improve teacher and student quality in science, technology, engineering, and mathematics education.

The NSF occupies a unique position, with the ability to influence the economic strength of the Nation through research and innovation. Basic research funded through the NSF opens the doors for further discoveries that can advance medical care, improve communication equipment, and contribute to creating better civilian and military security systems. In the current climate of global economic competition and a heightened need to protect our citizens and infrastructure, strong support of the NSF serves a vital national interest.

Science and technology have become a core component of economic strength and competitiveness. The NSF brings special expertise to the task of identifying and promoting the basic science and engineering research that underlies the United States' world economic leadership. Research sponsored by the NSF is vital to the Nation's investment across the scientific disciplines, and yields short term benefits and future advances for our national and homeland security, economic prosperity, quality of life, and educational growth. A growing chorus touts the importance of this kind of Federal engagement with science and technology, including Federal Reserve Chairman Alan Greenspan, the Council on Competitiveness, and Business Week, among many others. As the Council on Competitiveness stated in its December 2004 Innovate America report, "America must champion and lead a new era of openness and competition—fueled by agility and constant motion, and enabled by lifelong learning, technological prowess and the infinite creativity of the innovation process itself."

NSF is the sole Federal agency charged with the important task of funding a broad range of research, spanning a wide variety of disciplines including basic science, engineering, mathematics, and computing. It provides necessary financial and intellectual support for scientists working on groundbreaking research, much of which will lead to innovations that could impact any number of emerging technologies. While NSF accounts for less than 4 percent of total Federal research and

development spending, the agency supports almost half of the non-medical basic research at American colleges and universities. In the field of engineering, NSF provides nearly one-third of all Federal support for basic research and has contributed to important developments such as computer-aided design, fiber optics, biotechnology, advanced composite materials, and magnetic resonance imaging (MRI). Renewing support for research and equipment will allow the Nation to take advantage of the opportunities presented by these new technologies, creating further economic opportunities and improving overall quality of life.

NSF-sponsored research has led to many of the current developments in the area of homeland security. Recent NSF projects ranging from improving bomb detection to preventing an attack on our water supply help bolster our Nation's ability to prevent and respond to terrorist attacks.

The benefits of a strong science investment are evident as the men and women of our armed forces respond to unprecedented threats to U.S. national security. Because of its superiority, much of it brought about by investments in S&T, this Nation's military is successfully waging war against terrorism. In this new environment, characterized by unforeseen and unpredictable threats, maintaining and enhancing technological superiority will become even more imperative.

Across all fields, NSF support for research produces first-rate results on modest levels of investment. NSF-supported work is exceptionally well managed, and regularly attracts additional funding from outside sources. The agency has a diverse, responsive, results-oriented staff, efficient business processes that take advantage of staff knowledge and technology resources, and state-of-the-art business tools and technology. NSF has exceptional business practices, as it demonstrated by earning three "green lights" on the scorecard that tracks the President's Management Agenda. Former OMB Director Mitchell Daniels said that the NSF deserves to be strengthened, noting, "NSF is one of the true centers of excellence in the government where 95 percent of the funds that taxpayers provide goes out on a competitive basis directly to researchers pursuing the frontiers of science at a very low overhead cost." NSF's management successes include doubling its budget between 1990 and 2000 while simultaneously decreasing the number of employees at the agency.

Much of NSF"s work looks beyond technological innovation by engaging new generations of students to aid in discoveries while gaining valuable skills that help prepare them for the cutting-edge research of the future. Many NSF grants require undergraduate students to be involved in performing federally funded research. The NSF's Math and Science Partnership Program extends improved science education into classrooms by uniting local school districts with the faculties of nearby colleges and universities.

Engaging students in science from their pre-kindergarten education through college will help endow growing generations of Americans with the skills and interests necessary both to maintain U.S. leadership in economic, health, and military fields, as well as to function as citizens in an increasingly technology-driven society. A vibrant engineering education enterprise benefits civic, economic, and intellectual activity in the country. Engineering graduates learn to integrate scientific and engineering principles to develop products and processes that contribute to economic growth, advances in medical care, enhanced national security systems, and ecologically sound resource management. As a result, students who graduate with engineering degrees bring highly prized skills into a wide spectrum of sectors in the American workforce. Some conduct research that results in socially or economically valuable technological applications. Others produce and manage the technological innovations said to account for one-third to one-half of growth in the American economy. Still more bring advanced analytical abilities and knowledge of high technology to fields as diverse as health care, financial services, law, and government. Within all of these groups, the diversity of engineering graduates' backgrounds and viewpoints enables them to achieve the advances in innovation, productivity, and effectiveness that make them valuable contributors to the American workplace.

In the Addendum immediately following my testimony, I have included additional documentation of the many ways NSF support is promoting engineering education and research at U.S. colleges and universities. This wealth of human capital owes much of its capacity to strategic NSF support for engineering education.

A succession of predictable, sizable increases to the NSF budget will permit even greater development of human resources. In addition to the Math and Science Partnership initiative, NSF programs have become important vehicles for broadening the participation of under-represented groups such as minorities and women in the fields of science, math, and engineering. Through programs like the Experimental Program to Stimulate Competitive Research (EPSCoR), NSF works to strengthen the research and development infrastructure of many rural and low-population States. Consistent growth in the NSF budget will permit the allocation and coordi-

nation of the activities needed to promote the broadest possible development of science, mathematics, and technology skills among all Americans.

A $6.1 billion budget for NSF will enhance the value of the agency's other cross-cutting initiatives. New funding for multidisciplinary mathematics research will enhance the transfer of results and applications from mathematics and statistics research to science and engineering disciplines, expanding the cadre of researchers trained in both mathematics and science. Dynamic interdisciplinary work across engineering and science disciplines promises startling advances in, for example, medicine, manufacturing, and communications. The assurance of steady resources over extended periods of time for high-risk, high-reward endeavors—such as research in nanotechnology, biocomplexity, and high-speed computing—would greatly enhance their prospects for success. As Harold Varmus, former Director of the National Institutes of Health and currently President of the Memorial Sloan-Kettering Cancer Center, has said, "it is crucial that leaders of science agencies be able to anticipate several years of steady growth during periods of expansion. These agencies make multi-year awards and are responsible for training and research infrastructure, as well as the operational costs of doing research." In an increasingly interdependent research system, the NSF is uniquely situated to initiate and promote productive exchanges across the full range of scientific and engineering disciplines.

Thank you for the opportunity to present this testimony to the subcommittee. The Engineering Deans Council would be pleased to respond to any questions from you and your staff.

The Engineering Deans Council of the American Society for Engineering Education (ASEE) is the leadership organization of more than 300 deans of engineering in the United States. Founded in 1893, ASEE in a non-profit association dedicated to the improvement of engineering and engineering technology education.

ADDENDUM.—EXAMPLES OF NSF-FUNDED PROGRAMS AT ENGINEERING SCHOOLS

Quickly Identifying Deadly Viruses.—A portable pathogen detector is currently being developed by scientists at the Center for Biophotonics at the University of California-Davis to identify potentially deadly viruses and other biological agents in an unknown sample within 15 minutes. Originally developed at Lawrence Livermore National Laboratory with industry partners, the unit aims to help paramedics, emergency room specialists, police, and other first-responders who may unknowingly be exposed to bioterrorism or other infectious agents.

Developing Smaller, More Mobile, Power Sources.—Vanderbilt University robotics engineers are working to develop a power source for autonomous robots that stores significantly more energy per unit mass than batteries and weighs a fraction of the weight of a comparable battery/motor system. This power source can be used to run a "lower extremity enhancer" (also known as an "exoskeleton") to enable war fighters to easily carry 120 lbs over rough terrain for up to 24 hours. Vanderbilt researchers are developing the power system for this device, replacing batteries with rocket propellant in motors with pneumatic actuators. The Defense Advanced Research Projects Agency (DARPA) and the National Science Foundation (NSF) fund this research.

Realistic Facial Recognition.—Driven by applications in human-computer-interaction, security, entertainment and psychological research, facial analysis is a research topic in both the scientific community and industry. The Watson School of Engineering at Binghamton University is carrying out research on high definition face modeling representation. It is anticipated that this pilot research will lead to the development of a humanized system for recognizing human faces and their expressions (even emotions) as well as an automatic system for generating life-like facial expressions, which is crucial to the next generation of the human-computer interface.

Removing Organic Waste from a Wide Variety of Water.—Researchers at the University of Arkansas are developing a device that uses a new technology to clean water more efficiently and effectively. Currently, the most common treatment of organic wastewater is biological—bacteria digest organic material through their respiration cycle. Efficient and effective biological wastewater treatment occurs under conditions that include oxygen. The micro-bubble oxygenation system they have developed operates at approximately one-tenth of the cost of more typical surface agitator aeration and one-fifth the cost of bubble aeration methods for cleaning water.

Creating Earthquake-proof Structures.—As we all now know, earthquakes cause significant damage to structures and loss of lives. One way to prevent structural failures is to build them on strong, earthquake-resistant foundation systems. However, the current methods are inadequate to design such a foundation system. Researchers at Johns Hopkins University developed a new field-testing method to help

design a pile foundation system for buildings and bridges that can withstand even the strongest earthquake and prevent the collapse of such structures. The research is funded by the National Science Foundation and the Federal Highway Administration.

Securing the Nation's Power Grid.—The Nation's electric power grid was designed decades ago when computer networks were much less advanced and a single power company had complete control in each geographic region. As a result, the grid's communication infrastructure is inadequate, increasing the grid's vulnerability to massive accidental failures (such as in August 2003 on the East Coast, and in 1996 on the West Coast) and to cyber-attacks. Washington State University researchers are developing a new software system, called GridStat, which is more versatile than the grid's existing communication infrastructure and is able to handle the scaling-up of data that is imperative for the reliability and security of a deregulated power grid. GridStat has received funding from the Critical Infrastructure Protection program of the National Institute of Standards and Technology (NIST) and from the National Science Foundation (NSF).

PREPARED STATEMENT OF THE ASSOCIATION OF SMALL BUSINESS DEVELOPMENT CENTERS (ASBDC)

The Association of Small Business Development Centers (ASBDC) urges the Subcommittee on Commerce, Justice, Science and Related Agencies to provide an appropriation of $109 million for the Small Business Administration's Small Business Development Center (SBDC) grant program in the fiscal year 2006 appropriations bill.

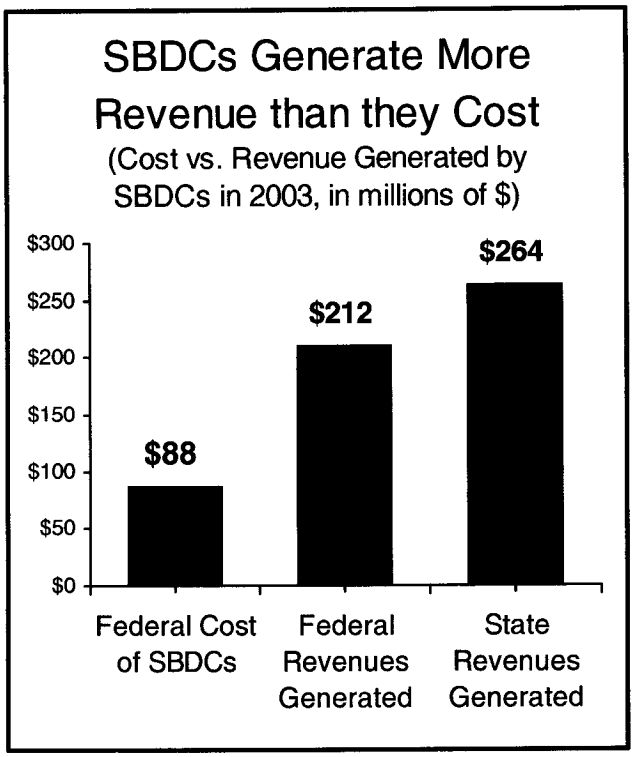
An appropriation of $109 million is the level of funding required to restore Federal resources lost to all State and regional SBDC networks in recent years. It is the funding level recommended by the Chair and Ranking Member of the Senate Small Business Committee in their Budget Views and Estimates letters; the funding level provided for in the Snowe-Kerry amendment to the Senate Budget Resolution; and the funding level recommended by every member of the Small Business Committee in their letter of April 22 to Chairman Shelby and Ranking Member Mikulski.

Federal funding for the nationwide SBDC network today is lower than it was in fiscal year 2001, even without accounting for inflation or population growth. If one accounts for the effects of inflation, the loss of Federal SBDC resources is clear and dramatic. If the national SBDC network is funded at $88 million in fiscal year 2006, as proposed by the SBA, State SBDC networks will receive significantly less Federal funding (in inflation-adjusted dollars) than they received in fiscal year 2001. For example: Alabama will receive $192,010 less; Alaska will receive $61,827 less; Hawaii will receive $61,827 less; Iowa will receive $197,561 less; Kansas will receive $169,564 less; Kentucky will receive $176,740 less; Maryland will receive $214,554 less; Mississippi will receive $157,298 less; Missouri will receive $250,778 less; New Hampshire will receive $61,827 less; New Mexico will receive $109,916 less; North Dakota will receive $61,827 less; Texas will receive $197,532 less; Vermont will receive $61,827 less; Washington will receive $79,029 less; West Virginia will receive $200,769 less; and Wisconsin will receive $233,910 less.

For small-population States, such as Alaska, Hawaii, New Hampshire, North Dakota and Vermont, which receive the statutory minimum funding for their SBDCs, the decline in Federal funding has been even more severe. Small-population States have not had an increase in Federal SBDC funding since 1998. These States will receive $103,210 (17 percent) less Federal funding for their SBDC networks in fiscal year 2006 (in inflation-adjusted dollars) than they received in fiscal year 1998, if the national SBDC network is funded at $88 million as proposed by the SBA.

The 24 States (including Alabama, Iowa, Kansas, Kentucky, Maryland, Mississippi, Missouri, New Mexico, West Virginia and Wisconsin) that suffered Federal SBDC grant reductions after the 2000 Census, have been particularly hard-hit by declining Federal funding for the nationwide SBDC network. Although the populations of these States grew during the 1990's, their populations did not grow as fast as the national average, and their share of Federal SBDC funding was reduced even further after the 2000 Census.

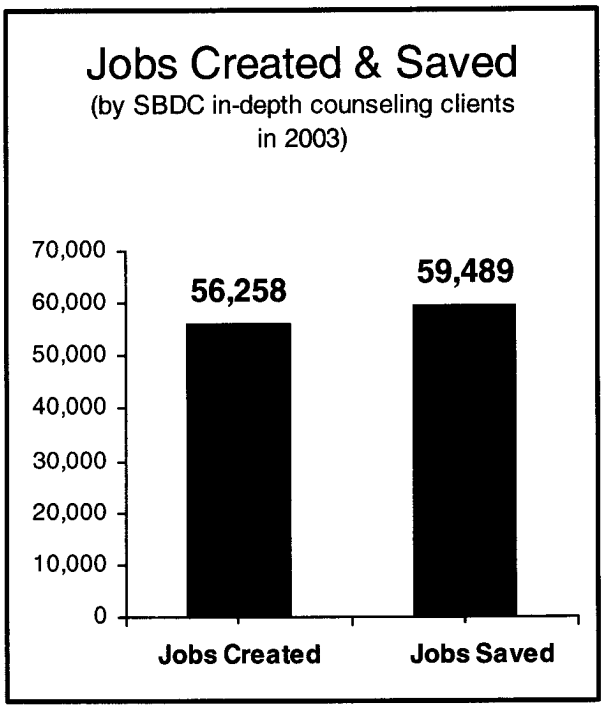
I realize the tight budget constraints facing the Congress this year, and the SBDC network appreciates the small increase in Federal funding proposed in the President's budget (from $87.8 million in fiscal year 2005 to $88 million in fiscal year 2006). However, as custodians of the SBDC program, we feel it is our responsibility to let Congress know about the impact of declining Federal resources on SBDC services to the small business community, and to urge Congress to alter that trend if possible.



As a result of declining Federal resources, SBDC services to small businesses owners and aspiring entrepreneurs have been curtailed, and the economic impact of SBDC assistance has been diminished. Last year, for example, due to the laying off of SBDC counselors and the closing of centers, the number of hours of business counseling provided by the nationwide SBDC network declined by 93,826 compared to the year before—despite growing demand for SBDC services.

I urge you to consider that Federal funding for the SBDC program is an investment, not a loss for the Federal Treasury. Federal SBDC funding actually generates more revenues than it costs the taxpayer. In 2003, the Federal SBDC appropriation of $88 million helped SBDC in-depth clients generate an estimated $211.6 million in Federal revenue—a return of $2.40 in new tax revenues for every Federal dollar spent on the SBDC program. And every dollar appropriated by the Federal Government for the SBDC national program—to assist small businesses to survive, grow and create jobs—leverages at least one additional, non-Federal dollar in small business assistance. That is so because, to secure a Federal dollar, SBDCs must raise a non-Federal matching dollar.

The SBDC network has a proven record of creating jobs and generating growth for America's small businesses.



—In the sluggish economy of 2003, as larger businesses downsized, SBDC in-depth counseling for small businesses generated 56,258 new full time jobs and helped save an additional 59,489 jobs.

—SBDC counseling clients create more jobs than average businesses. Businesses that received in-depth SBDC counseling experienced 25 times the job growth of average businesses (10.2 percent compared to 0.4 percent for U.S. businesses in general) in 2003.

—SBDCs help small businesses increase sales. SBDC in-depth counseling helped small businesses generate $5.9 billion in new sales and save an additional $7 billion in sales in 2003.

—SBDC clients' sales grow faster than other businesses' sales. Established businesses that received in-depth SBDC counseling experienced sales growth of 17 percent in 2003—compared to 2 percent for businesses in general.

—SBDC clients create new businesses. More than 50 percent of all pre-venture SBDC in-depth counseling clients start new businesses. Between 2002 and 2003, SBDC in-depth counseling clients started 15,157 new businesses.

—SBDC clients make investments in our economy. SBDCs helped in-depth clients obtain an estimated $2 billion in financing in 2003. Every dollar spent on the SBDC network helped small businesses to access $10.32 in new capital.

With an appropriation of $109 million, the nationwide SBDC network would be able to help small businesses create an estimated 78,000 new jobs and $270 million in new Federal revenues.

Nationwide, SBDCs provided management and technical assistance to more than 1.3 million small business owners and aspiring entrepreneurs last year. In 2004, SBDC services included face-to-face counseling of an hour or more for 279,905 clients; 1.5 million total hours of counseling; 27,193 group training sessions; and more than 2.1 million total hours of training for small businesses and aspiring entrepreneurs. In 2004, 39 percent of SBDC counseling clients nationwide were women, 27 percent were minorities and 9 percent were veterans. Forty-four percent of SBDC training clients were women, 24 percent were minorities and 7 percent were veterans.

America's SBDC network is a unique partnership that includes Congress, the SBA and the private sector, as well as the colleges, universities and State governments

that receive SBDC grants and manage the SBDC network. Outstanding institutions of higher education such as the University of Alabama at Birmingham, the University of Alaska at Anchorage, the University of Hawaii at Hilo, Iowa State University, Fort Hays State University, the University of Kentucky, the University of Maryland, the University of Mississippi, the University of Missouri Extension, the University of New Hampshire, Santa Fe Community College, the University of North Dakota, Texas Tech University, the University of Houston, the University of Texas at San Antonio, the Dallas County Community College District, the Vermont State Colleges, Washington State University, and the University of Wisconsin Extension, to name a few, are hosts of the SBDC program. SBDC hosts also include State government agencies, such as the West Virginia Development Office. These agencies, like the institutions of higher learning that host SBDC programs, bring to the SBDCs resources, relationships and unparalleled leadership in their respective States.

I appreciate the subcommittee's consideration of the ASBDC's views. The Federal investment in America's SBDC Network is a proven, cost-effective way to grow the small business community, create jobs and develop the economy of the future. As such, the ASBDC urges the subcommittee to provide an increase in funding for the SBDC program in the fiscal year 2006 Commerce, Justice, Science and Related Agencies appropriations bill, sufficient to restore Federal resources lost to all State and regional SBDC networks in recent years as a result of declining Federal funding, inflation and Census-related grant reductions.

The ASBDC also urges the subcommittee to reject non-SBDC related earmarks in the appropriation for SBDC grants. The SBDC appropriation has for several years included earmarks for SBDC related programs (for example, the SBDC defense transition program), and the ASBDC does not oppose this funding. However, in fiscal year 2004 and fiscal year 2005, the appropriations bills included earmarks for a program (the South Carolina Women's Business Center) that is unrelated to the SBDC program. The ASBDC opposes such non-SBDC related earmarks to the SBDC appropriation and urges the subcommittee to reject such earmarks.

PREPARED STATEMENT OF THE NATIONAL COUNCIL FOR SCIENCE AND THE ENVIRONMENT

SUMMARY

The National Council for Science and the Environment (NCSE) urges Congress to appropriate $6.29 billion for the National Science Foundation (NSF) in fiscal year 2006, an increase of 15 percent over fiscal year 2005. NCSE supports a 15 percent increase for NSF in order to put the agency on the doubling track that Congress and the administration deemed necessary when they enacted the National Science Foundation Authorization Act of 2002 (Public Law 107–368). Under the fiscal year 2006 budget request, funding for NSF would decline by approximately 0.5 percent in constant dollars, after accounting for a proposed transfer of existing funding from another agency.

The United States leads the world in scientific discovery and innovation, but other nations are on a fast track to pass the United States. The long-term prosperity of the Nation, our quality of life, as well as our national and homeland security require a strong and steady commitment of Federal resources to science and technology. Environmental R&D is a critical component of the overall Federal investment in research and development. Federal investments in environmental R&D must keep pace with the growing need to improve the scientific basis for environmental decisionmaking.

As a result of the recent reorganization of the Senate Appropriations Committee, the Subcommittee on Commerce, Justice, and Science now has broader jurisdiction over environmental research and education. NCSE commends the subcommittee for its past bipartisan leadership in support of science to improve environmental decisionmaking. The subcommittee has an historic opportunity to address pressing national challenges by appropriating strong and growing funding for environmental research and education at NSF, NOAA, and other science agencies under the subcommittee's expanded jurisdiction.

The National Council for Science and the Environment is dedicated to improving the scientific basis for environmental decisionmaking. We are supported by over 500 organizations, including universities, scientific societies, government associations, businesses and chambers of commerce, and environmental and other civic organizations. NCSE promotes science and its essential role in decisionmaking but does not take positions on environmental issues themselves.

Implementing the NSF Doubling Act.—The National Council for Science and the Environment urges Congress to appropriate the funds necessary to implement the National Science Foundation Authorization Act of 2002, which was passed by Congress on November 15, 2002 and signed into law by the President on December 19, 2002 (Public Law 107–368). A central goal of the Act is to double the budget of the National Science Foundation in 5 years. It authorizes a budget increase of 105 percent for NSF, from $4.8 billion in fiscal year 2002 to $9.8 billion in fiscal year 2007. The NSF Authorization Act of 2002 is a major milestone for the NSF, the scientific community, and the Nation. It recognizes the critical connection between science and the long-term economic strength of the Nation. In order to achieve the outcomes envisioned by this bold legislation, Congress must appropriate the funding levels specified in the NSF Authorization Act.

The National Council for Science and the Environment urges Congress to appropriate $6.29 billion for the National Science Foundation in fiscal year 2006, which would increase its budget by 15 percent over fiscal year 2005. NCSE supports a 15 percent increase for NSF in order to place the agency on the doubling track that Congress deemed necessary. Although the authorized funding level is $8.52 billion for fiscal year 2006, we understand that this may be beyond reach in the current fiscal environment.

The President's budget request would increase funding for NSF by 2.4 percent to $5.60 billion in fiscal year 2006. Of the $132 million in new funding, $48 million represents a transfer in existing funds from the U.S. Coast Guard for operation and maintenance of three polar icebreakers. After accounting for this transfer and adjusting for the effects of inflation, the NSF budget would decline by approximately 0.5 percent.

Expanding NSF's Environmental Research and Education Portfolio.—The National Science Foundation plays a crucial role in supporting environmental R&D. Environmental research often requires knowledge and discoveries that reach across disciplinary and institutional boundaries. NSF recognizes this and encourages multidisciplinary environmental activities across the entire agency, as well as with other Federal agencies. NSF has established a "virtual directorate" for Environmental Research and Education (ERE). Through this virtual directorate, NSF coordinates the environmental research and education activities supported by all the directorates and programs.

Although the National Science Board said environmental research and education should be one of NSF's "highest priorities" (see below), the growth of the ERE budget has lagged behind the growth of the overall NSF budget in recent years (Table 1). Given that the National Science Board has identified environmental research and education as one of the agency's highest priorities, funding for the ERE portfolio should grow at least as rapidly as the total NSF budget. In order to achieve the $1.6 billion funding level recommended by the National Science Board, NCSE supports rapid growth in NSF's Environmental Research and Education portfolio over the next several years.

Biocomplexity in the Environment.—NCSE is especially supportive of NSF's priority area on Biocomplexity in the Environment, which is the flagship of the ERE portfolio. This priority area provides a focal point for investigators from different disciplines to work together to understand complex environmental systems, including the roles of humans in shaping these systems. The Biocomplexity in the Environment priority area includes research in microbial genome sequencing and ecology of infectious diseases, which improves our understanding of disease transmission and potential agents of bioterrorism.

The Biocomplexity in the Environment priority area was reviewed by a Committee of Visitors in 2004. The Committee reported:

"This program is highly responsive to a great need for integrative research to answer non-linear complex questions. The outcomes are helpful to establishing sound science evidence for use in policy decisions, in making science relevant to the community, in including the human dimension in consideration of environmental change, and in integrating these areas of science knowledge and discovery with the need for environmental literacy among our students in formal education and the education of the general public.'"

After several years of rapid growth, the fiscal year 2006 budget request would cut funding for Biocomplexity in the Environment by 15.5 percent from $99.2 million in fiscal year 2005 to $83.8 million in fiscal year 2006. NCSE urges Congress to support increased funding for this critical priority area and its integration into NSF's permanent Environmental Research and Education portfolio.

TABLE 1.—NATIONAL SCIENCE FOUNDATION: ENVIRONMENTAL RESEARCH AND EDUCATION (ERE)

[Budget authority dollars in millions]

	Environmental R&D							Change 2004 to 2005	
	Fiscal Year 1999 Actual	Fiscal Year 2000 Actual	Fiscal Year 2001 Actual	Fiscal Year 2002 Actual	Fiscal Year 2003 Actual	Fiscal Year 2004 Plan	Fiscal Year 2005 Request	Amount	Percent
Research and Related Activities (R&RA):									
Biological Sciences	$117.9	$125.3	$167.0	$174.5	$188.3	$214.1	$214.1	.....	.....
Comp. & Info. Sci. & Eng.	4.0	7.0	15.1	15.1	22.1	23.9	23.9	.....	.....
Engineering	38.0	50.0	62.7	63.7	76.0	76.0	74.0	−$2.0	−2.6
Geosciences	320.9	327.9	409.4	442.8	499.1	513.1	513.1	.....	.....
Math. and Physical Sci.	44.3	48.3	56.4	56.4	46.5	32.2	32.2	.....	.....
Soc., Behav. & Econ. Sci.	17.8	17.3	20.1	21.7	21.5	22.4	22.4	.....	.....
Office of Polar Programs	45.3	45.3	47.5	49.8	50.9	50.9	50.9	.....	.....
Integrative Activities [1]	7.0	50.0	.....	.....	.....	.....	.....	.....	.....
Subtotal, R&RA	595.2	671.2	778.1	824.0	904.4	932.6	930.7	−1.9	−0.2
Edu. and Human Res. [2]	.....	.....	.....	.....	2.0	2.0	2.0	.....	.....
TOTAL ERE Budget	595.2	671.2	778.1	824.0	906.4	934.6	932.7	−1.9	−0.2
TOTAL NSF Budget	3,690.3	3,923.4	4,459.9	4,774.1	5,369.3	5,577.8	5,745.0	167.2	3.0

[1] In Fiscal Year 1999 and Fiscal Year 2000, funding for the Biocomplexity and the Environment (BE) Priority Area was included in the Integrative Activities account. Beginning in Fiscal Year 2001, BE funds were distributed across the directorates.

[2] Figures for environmental funding in the Education and Human Resources account are not available prior to Fiscal Year 2003. Although education is not generally scored as R&D, $2.0 million for Environmental Education was included in the Education and Human Resources Directorate in the ERE budget from Fiscal Year 2003 to 2005 (request).

Source: NSF. ERE funding levels for Fiscal Year 2005 Actual and Fiscal Year 2006 Request are unavailable as of May 2, 2005.

NATIONAL SCIENCE BOARD REPORT ON ENVIRONMENTAL SCIENCE AND ENGINEERING

The National Council for Science and the Environment encourages Congress to support full and effective implementation of the 2000 National Science Board (NSB) report, Environmental Science and Engineering for the 21st Century: The Role of the National Science Foundation, within the context of a doubling of the budget for NSF.

The National Science Board report sets out an ambitious set of recommendations that could dramatically improve the scientific basis for environmental decision-making. The first keystone recommendation is as follows:

"Environmental research, education, and scientific assessment should be one of NSF's highest priorities. The current environmental portfolio represents an expenditure of approximately $600 million per year. In view of the overwhelming importance of, and exciting opportunities for, progress in the environmental arena, and because existing resources are fully and appropriately utilized, new funding will be required. We recommend that support for environmental research, education, and scientific assessment at NSF be increased by an additional $1 billion, phased in over the next 5 years, to reach an annual expenditure of approximately $1.6 billion."

The report says that the National Science Board expects NSF to develop budget requests that are consistent with this recommendation. At first, growth in the Environmental Research and Education budget reflected its priority status: from fiscal year 1999 to 2001, the ERE account grew more rapidly than the overall NSF budget. However, the ERE growth rate has trailed the total NSF growth rate since that time (Table 1). From fiscal year 2002 to fiscal year 2005 (request), the ERE budget grew by only 13.1 percent while the total NSF budget grew by 20.3 percent. The lagging growth of the Environmental Research and Education budget relative to the total NSF budget in recent years raises serious concerns about its status as one of NSF"s "highest priorities."

The National Science Board envisioned a 167 percent increase in funding for the ERE portfolio, from approximately $600 million to $1.6 billion, within the context of a doubling of the total NSF budget over 5 years. The doubling has not materialized. Nevertheless, if the Environmental Research and Education portfolio is one of NSF's highest priorities, then the growth rate of the ERE budget should not lag behind the growth rate of the total NSF budget.

The National Science Foundation has taken many steps to implement the recommendations of the NSB. Full implementation of the NSB report will require strong support from Congress and a significant increase in funding for NSF's portfolio of environmental science, engineering and education.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

Thank you, Mr. Chairman for the opportunity to present this testimony on behalf of the American Society of Plant Biologists (ASPB). My name is Roger Hangarter and I am President of ASPB and professor of biology at Indiana University. ASPB joins with other members of the Coalition for National Science Funding in recommending at least $6 billion in fiscal year 2006 appropriations for the National Science Foundation.

This level of funding will enable NSF to continue to play its key role in establishing a leadership position for the United States in science and technology. U.S. leadership in a wide range of science disciplines is needed to compete and survive in the increasingly challenging global market.

Support for NSF contributes to new job-creating discoveries while at the same time, training the highly skilled work force essential for business and industry in the Nation. Despite the attractions of lower wages and benefits costs to companies considering moving jobs offshore, it is the highly skilled workforce in the United States that plays a major role in contributing to job starts and business expansions here at home. The business magazine, Forbes, looked at the best places of the 150 largest cites/regions to start a business in the United States in its May 24, 2004 issue. The business magazine turned to an economic and financial research firm, Economy.com, to conduct the analysis. One of the major criteria mentioned in the survey assessing the best places for businesses was an educated workforce. "To assess the qualifications of the work force, we took into account the concentration of college graduates and Ph.D.s in an area," Forbes said. NSF, with its grant support of university-based research and education plays a key role in the training of future and current college graduates and Ph.D.s in the United States.

Other criteria in the business survey index included weighing of business expenses, job and income growth, migration patterns, crime rates. Culture and leisure were also taken into account.

At the top of its list was Madison, Wisconsin, largely because of research and education at the University of Wisconsin and its educated workforce. In Madison, 41 percent of the population has a college degree—almost twice the national average. That helps create a tight labor market where unemployment is the lowest of any of the 150 largest metro areas, the article noted.

"Brains power the Madison economy: The university, which employs 17,000 souls but has helped create 70,000 jobs in Madison, generates $4.7 billion a year in direct and indirect output, reports NorthStar Economics," Forbes noted. "Outsourcing may be all the rage these days, but many companies are still looking homeward—with good reason: low business costs and an educated workforce." Contributions of NSF and other federally supported research to universities and local economies are also found in many cities across the Nation in addition to Madison.

Huntsville, Alabama captured a top ten position in the business-appeal rankings. The Forbes article reported, "What Huntsville lacks in size, it makes up for in brains: 31 percent of the population has a college degree (U.S. average: 24 percent)." Huntsville also benefits from government investment by the Department of Defense, NASA and large private employers, who make use of its educated workforce.

Lexington, Kentucky, among the top ten cities in the survey to start a business or career, benefits from large employers University of Kentucky, Toyota Motor, Lexmark International and other employers. In addition to educated workers, low business costs also contribute to Lexington's appeal to employers, according to Forbes.

Baltimore, Maryland with its base of major university and other employers was in the top half of the Forbes listing of best cities to start a business or career. Kansas City, Missouri was in the top half of the survey listing, aided by contributions of NSF-supported institutions in the State to its educated workforce.

An educated work force including graduates of universities in New Mexico contribute to Albuquerque being ranked high at 12 in the business appeal index.

Austin, Texas, with the University of Texas, was selected as one of the three most appealing cities for new business by Forbes and its research firm that compiled the business index. Also highly ranked in Texas for appealing to business are Houston, Fort Worth, Dallas and San Antonio.

States that did not have one of the 150 largest cities were not included in the business index rankings. However, NSF-sponsored research and education at universities of less populated States and in smaller cities make significant contributions to training of an educated workforce and related local business development.

New technologies resulting from basic research findings supported by NSF help create new industries and many new jobs. Often new companies spring up as a result of NSF-sponsored research.

Strong contributions by universities conducting NSF-supported research to local economies also lead to a stronger national economy. With the higher labor, housing, transportation, commercial and industrial property and related costs found in the United States compared to a number of world nation competitors, Federal investment in science and education through support of NSF helps keep the Nation's businesses afloat in a global sea of keen competition.

NSF support for basic plant research contributes to the local economies nationwide, including rural areas, while helping to secure the food supply of all Americans. As the first step of every food chain, plants and research on plants plays an essential role in meeting the nutritional needs of people here and abroad. The NSF Directorate for Biological Sciences sponsors examination of basic research questions on plants and other organisms. A number of plant research discoveries were cited by NSF among its most significant advances in science over the first 50 years of the agency's existence.

NSF supports world leading plant genomic research as part of the Plant Genome Research Program. The National Plant Genome Initiative Progress Report was published January 2005 by the National Science and Technology Council Committee on Science Interagency Working Group on Plant Genomes. The report noted, "Plant genome research holds enormous promise for solving global problems in agriculture, health, energy and environmental protection. Much still remains to realize this potential and the U.S. scientific community is clearly working toward that goal."

The report cited the importance of research on economically important crops and on the model plant, Arabidopsis thaliana—a plant with a small and simple genome. Knowledge gained from the Arabidopsis genome facilitates understanding of other economically important plants through use of comparative genomics.

Advances in plant genome and other basic plant research combined with modern biotechnology will lead to superior food and energy crops, more nutritious foods, more environmentally benign plant production practices and new plant-produced lifesaving medicines. These advances will significantly benefit America's farmers and consumers.

U.S. leadership in science and technology plays an important role in the Nation's war on terrorism at home and abroad. Security related enhancements in airports, passenger plane cockpits, landmine sensing plants, modern armored vehicles, night-vision equipment and other critical areas represent applications of technology that can be traced back to basic science.

ASPB, founded in 1924, represents nearly 6,000 plant scientists. The largest segment of ASPB members conducts research at universities in each of the 50 States. ASPB membership also includes scientists at government and commercial laboratories. We appreciate the strong efforts of the committee in support of NSF. Please let us know if we can provide any further information.

PREPARED STATEMENT OF THE OCEAN CONSERVANCY

The Ocean Conservancy on behalf of the American Society for the Prevention of Cruelty to Animals, Cetacean Society International, Defenders of Wildlife, Humane Society of the United States, International Fund for Animal Welfare, International Wildlife Coalition, National Environmental Trust, Natural Resources Defense Council, The Marine Mammal Center, The Whale and Dolphin Conservation Society is pleased to share our views regarding the marine conservation programs in the budgets of the National Oceanic and Atmospheric Administration (NOAA), the Department of State's Bureau of Oceans and International Environmental and Scientific Affairs and the Marine Mammal Commission and requests that this statement be included in the official record for the fiscal year 2006 Science, State, Justice, Commerce, and Related Agencies bill.

We cannot overstate the importance of this subcommittee in advancing marine conservation and appreciate the funding provided in fiscal year 2005. We are deeply troubled by the severe cuts for the National Marine Fisheries Service proposed in the administration's fiscal year 2006 budget request. If enacted, these cuts will cripple the agency's ability to properly manage our oceans and conserve protected and highly vulnerable marine species such as sea turtles and marine mammals. We recognize the constraints this subcommittee faces, but with the recognized threats that these species face, as highlighted in the U.S. Commission on Ocean Policy's Report, we urge you to make ocean conservation a top priority by restoring reduced appropriations to fiscal year 2005 levels.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

National Marine Fisheries Service

Marine Mammal Protection

A lack of adequate resources has severely hampered NMFS's ability to effectively implement the Marine Mammal Protection Act (MMPA). We are deeply disappointed that the President's budget cut funding for this line item in fiscal year 2006 from $81.504 million to $38.023 million and strongly urge the subcommittee to restore funding for this program to the fiscal year 2005 levels. This will allow the National Marine Fisheries Services (NMFS) to fund top priority studies identified by the take reduction teams; design and implement take reduction plans; conduct research on population trends; undertake research and status reviews on threatened and endangered whales; further investigate the stock structure and abundance of Atlantic bottlenose dolphins; conduct critical research on health and respond to marine mammal die-offs; undertake research and implement effective mitigation measures related to acoustic impacts on marine mammals; and carry out monitoring, education, and enforcement programs.

Protected Species Research and Management-Protected Resources Stock Assessment Improvement Plans

The MMPA and ESA require NMFS to regularly evaluate the status of more than 200 stocks of marine mammals and other listed species. Accurate and precise biological information is necessary to carry out effective conservation programs, promote recovery, evaluate listing status, and authorize scientifically defensible take reduction plans and incidental take permits. Unfortunately, over 200 marine mammal stocks and all U.S. sea turtle populations lack the necessary data required under MMPA and the ESA. In order to address this problem, we urge the sub-

committee to consider providing $15 million in fiscal year 2006, an increase of $13 million from the President's request.

Endangered Species

NMFS bears significant responsibility for administering the Endangered Species Act with respect to listed marine and anadromous species such as North Atlantic right whales, Steller sea lions, and all species of sea turtles found in U.S. waters. With only approximately 300 North Atlantic right whales still alive, funding is needed to improve our understanding of right whales, to develop fishing technologies to reduce entanglements, and to undertake studies and measures to reduce ship strikes. The President's request of $5.8 million is woefully inadequate for endangered species as a whole and is significantly less than what was provided in fiscal year 2005 for Right Whale Conservation. We thank the subcommittee for its past support and request continued funding of $15 million in fiscal year 2006 for North Atlantic Right Whale conservation efforts. In addition, we request that the subcommittee provide $10 million for implementation of the ESA.

Sea Turtles

The apparent decline of the southern Florida loggerhead turtle nesting population and continuing Pacific sea turtle declines underscore the need to restore Marine Turtle funding to fiscal year 2005 levels. The President's request of $9.7 million for marine turtles is insufficient. We respectfully request that the subcommittee restore funding to fiscal year 2005 levels and provide $14.93 million for sea turtle conservation efforts in fiscal year 2006. In particular, we support restoration of $1.858 million for Sea Turtle Supplemental Funding and $.955 million for the National Fish and Wildlife Foundation Species Management program, both of which have been completely eliminated in fiscal year 2006. These programs leverage valuable funds for sea turtle conservation and foster important private and government partnerships.

Enforcement and Observers/Training

In addition to better data collection, enforcement of our marine mammal and sea turtle protection regulations is critical. Unfortunately, lack of funding has hampered NMFS's ability to keep pace with the need. We urge $75 million in fiscal year 2006, $20.8 million above the administration's request, to address this shortfall so that more officers can be hired to better enforce our marine conservation laws. Along with stock assessments, reliable, objective information must be collected about how many marine mammals and sea turtles are being caught, as bycatch is crucial to the conservation of these vulnerable species. Observers are a key means of collecting such information, yet the coverage for many of the fisheries is less than 5 percent—completely inadequate to obtain any statistically reliable information. We recommend the subcommittee provide an additional $32.5 million for observers in fiscal year 2006 over the administration request of $25.992 million.

Northeast Observers.—We urge the Appropriations Subcommittee to authorize $20 million to support and expand the efforts of the Northeast Fisheries Observer Program in fiscal year 2006. These funds are critically needed to increase existing levels of observer coverage in several Northeast fisheries, to expand the observer-training program, and to improve the data management system currently in place. This increase of $15.5 million over the administration's request is needed to: (1) provide sufficient levels of observer coverage to evaluate selective fishing practices, especially through Special Access Programs, B-day programs, and real-world testing of innovative gear technologies; (2) quantify actual bycatch rates in various regional fisheries; (3) assure that total catch (both landings and discards) are accurately quantified; (4) develop standardized reporting methodology to help assure that fishery managers receive the data collected by at-sea observers in a timely manner.

Atlantic Coast Observers.—We believe that a minimum of 20 percent observer coverage should be required throughout the Atlantic, with 100 percent coverage for any further gear research. Monitoring programs in the Atlantic longline fleet exemplify low levels of observer coverage. Since 2001, Atlantic longline observer coverage has not met even the 5 percent level required by NMFS in order to comply with the ESA. As a result, NMFS estimates that several hundred endangered sea turtles were captured in excess of authorized levels before the agency took action to require further protections. As NMFS implements various marine mammal take reduction plans and its Comprehensive Strategy for Sea Turtle Conservation in the Atlantic, observer coverage in a variety of fisheries will be a key element. We respectfully request that the subcommittee fund Atlantic Coast Observers at $13.348 million in fiscal year 2006, $10 million above the administration request.

Hawaii Longline Observers.—We strongly support $3.979 million in funding for Hawaii pelagic longline fisheries observers. High interaction rates with endangered

sea turtles have resulted in partial closures in the fishery in recent years to avoid jeopardizing the continued existence of these species. In 2004, fishermen returned to the closed areas with gear and bait modifications expected to reduce the number and severity of sea turtle interactions. Rates of capture, however, have been higher than previously estimated, demonstrating the need for continued high levels of observer coverage to determine the effectiveness of these modifications in each fishery. We respectfully request that the subcommittee fund Hawaii Longline Observers at $8.979 million in fiscal year 2006, $5 million above the administration request.

West Coast Observers.—We respectfully requests that the subcommittee fund West coast observers at $7 million in fiscal year 2006, $2 million above the administration request.

National Environmental Policy Act (NEPA) Implementation

We support the administration's $8.0 million request for implementing NEPA. This funding is critical, as NMFS is required by law to consider and document potential environmental impacts of agency actions, ranging from complex rulemakings to controversial research permits. Of these funds, we urge the committee to dedicate $2 million to ensure robust NEPA analyses for marine mammal permitting.

DEPARTMENT OF STATE

Bureau of Oceans and International Environmental and Scientific Affairs

International Fisheries Commission Account

We request $300,000 for the State Department to support the Inter-American Convention for the Protection and Conservation of Sea Turtles and the Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South East Asia. Continued U.S. leadership and support will ensure that the initial excellent work of these conventions continues. In the aftermath of the Asian tsunami, the Indian Ocean agreement has become increasingly important for organizing and generating restoration and conservation initiatives in the region.

MARINE MAMMAL COMMISSION

We request that the subcommittee support the Marine Mammal Commission's base program at $4.25 million in fiscal year 2006. The Marine Mammal Commission plays a vital oversight role to Federal agencies charged with implementing the Marine Mammal Protection Act. The Commission continues to use wisely the funds that have been appropriated, funding innovative research and providing seed money for non-governmental researchers, convening workshops on killer whale predation on marine mammals, commissioning population viability analyses of threatened and endangered marine mammals, hosting a workshop and preparing a report identifying research needs in marine mammal conservation and science, and convening a stakeholder process to evaluate the research and mitigation strategies related to the impacts of sound on marine mammals. The Commission's scientific credibility, research, and advice are critical components to our Nation's ability to conserve marine mammals and evaluate emerging threats to these animals.

These programs and issues are of the utmost importance to the stewardship of the Nation's living marine resources. We greatly appreciate your support for these programs in the past and look forward to continued, responsible funding for these programs in fiscal year 2006. Thank you for considering our requests.

LIST OF WITNESSES, COMMUNICATIONS, AND PREPARED STATEMENTS

SUBJECT INDEX

DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY GENERAL

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