Senate today, will speak on environmental matters in our legislation. But before he does, I wanted to bring to the Senate's attention the death of someone who really has been an outstanding American citizen.

Bessie Delany died Monday at the age of 104 in her home in Mount Vernon, NY. Many Americans know her as part of the Delany sisters. Dr. Bessie Delany and her sister, Sadie Delany, lived through the most remarkable period in American history, from about the 1880's all the way until now. They saw the end of slavery. They lived through the era where people moved from the South. Bessie Delany was one of the first African-American women to become a physician in the United States. She was the second African-American woman to practice dentistry in New York, having graduated from Columbia University in 1923.

About 5 years ago, she and her sister became famous when they wrote, coauthored with Amy Hill Hearth, a book called ''Having Our Say: The Delany Sisters' First 100 Years.'' In April, a play opened on Broadway telling their story.

I read their great book called ''Having Our Say,'' and it is a remarkable tribute of courage, character, and competency.

Both of these women overcame incredible odds to make a substantial contribution to the American community. And overcoming all of the bias related to racism, all the obstacles for which there were very skimpy opportunity structures available to them, both—one went on to be a teacher, and Bessie Delany became, as I said, a physician.

All of America is sorry to see Dr. Bessie Delany move on. We are very sorry about her death. We extend our sympathy to her family. But as a great tribute to her and her remarkable life, I really encourage all who are listening here to go to the library and get this remarkable book, ''Having Our Say,'' because in listening to what the Delanys say, both this remarkable teacher and this remarkable physician have a lot of lessons to teach us and to give us, also, a navigational chart for the healing that needs to go on in our society.

So to Dr. Bessie Delany, wherever she is in God's great glory, we just thank her for what she has done for this country. We express our condolences to her sister Sadie. And as a tribute we urge you read this remarkable book about their lives.

Mr. President, I yield the floor.

DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1996

The Senate continued with the consideration of the bill.

Mr. BOND addressed the Chair.

The PRESIDING OFFICER. The Senator from Missouri.

Mr. BOND. Mr. President, we are anxiously awaiting colleagues who want to come down and either offer amendments or debate the measures before us. Several of our colleagues have expressed an interest in speaking on the space station. We have a 1½-hour time agreement, equally divided. At least on our side, that time is almost completely used up.

So, if anybody feels the need to speak for the space station—it might also be true for those opposing it—this would be a good time to come. We would like to hear what they have to say. But as we indicated yesterday, the majority leader and the Democratic leader, as well as the rest of us, know we have to get these appropriations bills finished by September 30, and our ability to begin the recess on October 2 depends upon our completing this work. So we are pressed for time. We do invite anybody who has measures or has views on measures that will be on this bill to come down and address them now because this will be the best time to do so.

But since we do have some time, I thought it might be helpful for my colleagues who may be getting all kinds of calls from organizations that are opposed to measures that we put forth in the bill to explain a little bit about what we have done in the EPA section. The National Wildlife Federation has a hotline going out saying there are damaging riders; we are doing all kinds of terrible things to the Environmental Protection Agency. The National Audubon Society says we are crippling the Agency and there is a backdoor attempt to strike out provisions in the EPA laws.

Frankly, that is just not true. The environmental progress in this country has been significant. We have in the last 25 years come a long way toward cleaning up our environment. I am very proud of the progress we have made. I want to see that progress continue.

But I think we have come to the point now where we demand that the progress be on the basis of common sense, of justifiable actions, of using sound science, of not duplicating efforts, and making sure that the dollars we spend on the environment, whether they are appropriated dollars or whether they are dollars that others, State governments, local governments, not-for-profits businesses, and individuals have to pay to comply with the environmental laws are spent properly.

Now, let me go through, for the benefit of my colleagues and those who may be watching, the so-called riders or legislative provisions that are included in this bill. The recommendation of the Senate Appropriations Committee has seven legislative provisions within EPA. All but one of the so-called riders in the House bill have not been included in this measure. The committee in the Senate limited the provisions in our bills to ones that have been included in previous VA–HUD bills or other legislation or that eliminate duplication or unnecessary spending. Let me tell you about the provisions.

First, we would prohibit the EPA from requiring centralized inspection maintenance facilities in fiscal year 1996. This is the same language that was included in the National Highway System bill, supported by a large number of Senators. It is clear that the provisions for central inspection and maintenance are going to cause tremendous headaches without the benefits that are needed, and we can do it in a less intrusive, bureaucratic way.

Second, this measure, as reported out of the committee, would prohibit the EPA from requiring employers to adopt car-pooling plans in fiscal year 1996. This language is one of the House riders. It is the same language included in the fiscal year 1995 rescission bill. If workers in America want the Federal Government telling them how they can get to work and demanding putting restrictions and requirements on how they go to work, then they should not support this rider. I do not believe, talking to the people in my State, that they want the Federal Government telling them how they get to work in the morning and how they get home in the evening.

Third, we would in the committee recommendation prohibit EPA from regulating radon and several other drinking water contaminants in fiscal year 1996 unless the drinking water law is reauthorized. It is a very important measure pending before the Environment and Public Works Committee to reauthorize the safe drinking water law. I think the provision that we have in this measure is fully consistent with the attempts by the EPA, which itself has been trying to negotiate extensions to court-ordered deadlines for low-priority contaminants. For each of the contaminants in question, the risk is relatively low or the science is not fully supported by science-based rulemakings. This action has been requested by the National Governors' Association, the League of Cities, the Association of Metropolitan Water Agencies, the American Waterworks Association, the National Association of Water Companies, the National Rural Water Association, and the Natural Water Resources Association.

Frankly, there has been a lot of concern these days about E. coli and cryptosporidium, and these agencies want local water systems to devote their time and their resources to keeping those known, dangerous contaminants out of the water supply. To the extent that they are required to test for and develop means of dealing with other low-priority contaminants where the science may be uncertain, it will take away from their efforts to keep the water supply system clean from these dangerous, well-recognized, well-defined contaminants.

Fourth, we would prohibit EPA from requiring in fiscal year 1996 the use of

MTBE in Alaska because of health concerns raised there associated with the use of MTBE. There have been serious instances where MTBE use has thought to cause very serious health effects. This provision was carried in the fiscal year 1994 VA–HUD bill and does not exempt Alaska from clean air requirements. It is saying, do not require something that appears to be causing very significant health problems in Alaska.

The next one would prohibit EPA from adding new sites to the Superfund national priorities list in fiscal year 1996 unless requested by the Governor or tribal leader unless or until the Superfund law is reauthorized. Everyone recognizes that the Superfund law badly needs revision. The Superfund law has generated a tremendous amount of resources going to lawyers and for administrative costs. A report done by the General Accounting Office at our request shows that only about 30 percent of the Superfund sites currently being worked by the EPA involve current risk to human health or even potential risk to human health under current usages.

We think the time has come to reauthorize the Superfund law to bring sound science and to target the resources. Therefore, we say do not move forward expanding the reach of Superfund until it is reauthorized and Congress has had an opportunity to act on the substantive requirements in the Superfund legislation.

This language was included in the fiscal year 1995 rescission, adopted, and signed into law by the President this summer. It is consistent with the committee's decision to limit Superfund spending to current health risks pending reauthorization.

The next measure in the bill authorizes an exemption from water pretreatment standards for industrial discharges to the Kalamazoo water plant if environmental standards are met through a local pretreatment plant. This provision has been narrowly crafted, and it will not result in any environmental degradation. It will prevent duplicative and unnecessary water treatment construction. Kalamazoo has already entered into a plan to be financed by the major industrial concerns in that city to deal with the effluent from their plants.

Since Kalamazoo is getting a water treatment plant financed by those who are making the discharges, it does not make any sense to go forward with an overlapping, a duplicating requirement to have another treatment plant to do exactly the same thing when one is already being financed.

Next, we would prohibit EPA from enforcing the foreign refiner baseline for reformulated gasoline. This is the same provision as included in the fiscal year 1995 VA–HUD bill, and it would ensure quite simply that foreign refiners are held to the same higher environmental standards as domestic refiners. If we do not do this, foreign refiners will be able to send in products that do not meet the environmental standards that we expect of our domestic refiners.

Mr. President, what sense does that make? Why should we give foreign refiners a free pass to send in products that have not met the same standards that we require of our domestic refiners? I think this is another sound environmental measure that is included in this bill. I urge my colleagues, and those who are interested, to look at the environmental impacts of these provisions.

The final one I want to talk about would eliminate duplicative and wasteful efforts by the EPA. This would prohibit the Environmental Protection Agency from vetoing decisions made by the Corps of Engineers regarding wetlands permits in fiscal year 1996.

The provision is intended to keep EPA from overfiling or second-guessing the Corps of Engineers. It will streamline the corps' permitting process. EPA still has a wide range of responsibilities dealing with wetlands. We are not changing those. We are only saying to the EPA and to all of the affected landowners that you have a right to get an answer, a final answer from one Federal agency.

The Corps of Engineers operates with EPA in the regulation of wetlands. Where does it make any sense to the landowner who goes to the Corps of Engineers and says, ''OK, here is what I propose to do. Grant me a permit,'' and, as it stands now, the Corps of Engineers can say, ''OK, you meet all our standards,'' and then the next day the EPA comes in and says, ''Oh, but we don't like what the Corps of Engineers did''?

Frankly, this is a duplicative, wasteful, and, I think, unsatisfactory service to our citizens to say that you are going to have to take two chances to get the Federal Government to tell you they do not like what you are doing. We have standards, and the Corps of Engineers is to follow those standards. Why do we give the power to the EPA to come in and say, ''Oh, well, you may have satisfied the Corps of Engineers, but you don't satisfy us''?

As Senators know, the corps has the authority and the expertise to administer the Wetlands Program, and it does not, in my view, make any sense to say that the same law can be administered by two separate agencies, particularly when we are in a time of strained budgets when a second agency should not be duplicating the efforts of the first one. That is why we say, ''EPA, if the corps has already done it, go on and do the other work you are supposed to do; don't second-guess the corps.''

The Senate should know this provision does not affect the multitude of other EPA authorities under the Clean Water Act. It in no way undermines wetlands protection. According to the Corps of Engineers, no other Federal regulatory program gives two agencies different authority over the same permit decisions. I understand there are some who believe this redundancy is defensible. During the committee markup, some Members suggested that they would offer an amendment to strike the provision on the floor. If so, we will be happy to discuss it.

As many of my colleagues know, the House did include a provision in the bill preventing funding for the entire 404 wetlands permit law, noting that it was necessary to provide Congress additional time to determine the proper management of the Nation's wetlands.

The Corps of Engineers, as we all know, has the responsibility of administering the day-to-day permitting. The States, EPA, the National Oceanographic and Atmospheric Agency, Fish and Wildlife, and Marine Service also have roles. There are pages and pages of regulations and memorandums of agreement governing the complex permitting process.

Under section 401 requirements, for a 404 permit to be issued, the corps must first obtain a certification from the applicable State—the State—that water quality standards will not be violated as a result of the discharge of fill material. This essentially gives the States veto authority over permit applications. It guarantees a State role in the process.

Of the additional resource agencies, EPA is perhaps the most influential. Besides having authority under section 404 to veto permit decisions, EPA is responsible for developing guidelines, known as 404(B)(1) guidelines, which are the substantive environmental criteria that are binding on the corps in the permitting process.

To me, it makes no sense to say that once you have laid out all those standards, once the Corps of Engineers has gone through the process, once they have gotten the approval of the State and they are following the EPA regulations, if they grant a permit, EPA should come in and say, ''Oh, we don't agree with the corps' action.'' If there is one thing that constituents in my State are fed up with, it is being told two different things by two different Federal agencies. They expect the Federal agencies who serve them to give them one answer and to give them the right answer.

This measure would say, ''Corps of Engineers, if you grant a permit, then we are not going to have the EPA using its time and resources to come in and change the direction given to the person, the individual or the organization, applying for that permit.''

I hope that those who hear scare stories about the provisions in this bill will take a look at the substantive provisions and realize they are necessary to streamline and to ensure the effective administration of the Environmental Protection Agency, to ensure we continue the progress that we have made and must continue to make toward assuring a clean environment for ourselves and our children.

Mr. President, I yield the floor, and I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. KEMPTHORNE). The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. HEFLIN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. HEFLIN. Mr. President, I rise in strong support of the international space station program. This program is out of the planning stages and is well underway. The space station is real. Space shuttle missions in support of phase one of the station program began in February 1994. The most recent phase one mission ended with the successful return of astronaut Norm Thagard from his record breaking stay in space. Over 48,000 pounds of station hardware have been manufactured and 75,000 pounds will be completed by the end of this year.

The space station is real to communities, students and teachers throughout the Nation. Teachers are already using space station concepts in the classroom. Students have participated in activities including living in a bus outfitted as a space station, complete with living facilities, experiments, and communication to Earth. Today the space station is capturing the imagination of the leaders of the future and encouraging students to study math, physics, chemistry, biology, geography, and Earth science.

When I grew up as a boy, we had tree houses, and you would have a lot of activity playing in tree houses. I think you will see space station houses in trees and other locations that kids will be playing in as we move forward and start moving toward the deployment of the space station.

Benefits of the station program are already being realized. Researchers seeking to develop a station bioreactor for cell cultures have developed a way to grow tumor tissues outside the body, so chemotherapy and other treatments can be tested without harm to the patient.

The space station will create a permanent orbiting science institute in space capable of performing long duration research in a nearly gravity-free environment. Research in medicine, materials and processes, engineering and technology will have immediate, practical application for life on Earth and will create jobs and economic opportunities today and in the decade to come. Information gathered about how humans react and adapt to weightlessness will allow scientists to further understand conditions such as balance disorders afflicting 90 million Americans, osteoporosis affecting 24 million Americans, and cardiovascular disease, the leading cause of death in the United States. Every dollar spent on the station is spent here on Earth and will provide an excellent return on investment. If planned orbital research in combustion science improves combustion processes only a modest 2 percent, then the annual savings would be approximately $8 billion a year in the cost of energy produced through combustion in the United States.

In June 1995, the General Accounting Office completed a review of the current estimated cost of the space station program. The GAO concluded that ''the program has made major progress since last year in defining its requirements, meeting its schedule milestones, and remaining within its annual operation budgets. Nevertheless, the program faces formidable challenges in completing all its tasks on schedule and within its budget.'' Of course the station program faces challenges as does any new endeavor. However, we should judge the ability of NASA to meet these challenges on the performance of the station program since it was redesigned in 1993. As the GAO discovered, NASA is performing as promised and is successfully meeting the stated objectives of the station program.

It is unfortunate that the biggest challenge the station program faces appears to be the Congress of the United States, specifically a small handful of Members who continue to offer legislation aimed at terminating the station program. Since the inception of the program, votes have been held over 18 times on the station. We must continue to reject these attempts and continue our support of the space station program. We owe this to the future of the citizens of the United States and to all the people of Earth.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. INOUYE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. INOUYE. Mr. President, I ask unanimous consent that the pending amendment be temporarily society aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMENDMENT NO. 2777

(Purpose: To make available $38 million for construction at the Spark M. Matsunaga Department of Veterans Affairs Medical Center, Hawaii)

Mr. INOUYE. Mr. President, I send to the desk an amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from Hawaii [Mr. INOUYE] proposes an amendment numbered 2777.

Mr. INOUYE. Mr. President, I ask unanimous consent reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 22, between lines 4 and 5, insert the following:

SEC. 111. (a) Notwithstanding any other provision of this title, the amount appropriated by this title under the heading ''DEPARTMENTAL ADMINISTRATION'' under the paragraph ''CONSTRUCTION, MAJOR PROJECTS'' is hereby increased by $38,000,000.

(b) Of the amount available under the paragraph referred to in subsection (a), as increased by such subsection, $38,000,000 shall be available for construction at the Spark M. Matsunaga Department of Veterans Affairs Medical Center, Honolulu, Hawaii.

(c) Notwithstanding any other provision of this title, the amount appropriated by this title under the heading ''DEPARTMENTAL ADMINISTRATION'' under the paragraph ''GENERAL OPERATING EXPENSES'' is hereby reduced by $38,000,000.

Mr. INOUYE. Mr. President, this is a very simple, forthright amendment. It calls for the completion of the Spark M. Matsunaga Medical Center in Honolulu. It provides for $38 million.

Mr. President, there are 127,600 veterans residing in the State of Hawaii. The State of Hawaii is one of only two States in our Union without a VA hospital. The other State is the State of Alaska. Per capita spending in the State of Hawaii is the lowest in the Nation.

At the same time, Hawaii has the highest ratio of veterans per capita and the highest proportion of disabled veterans over 65 years of age or older.

In World War II, the State of Hawaii, which was then a territory, 50 years ago, had more volunteers per capita than any other State or territory of our Union. While serving far fewer veterans, the State of Montana and the State of Wyoming have two VA hospitals apiece. We have more veterans, but we have none; they have less veterans, but they have two apiece.

In the case of Wyoming, the veteran population is less than half of the State of Hawaii. South Dakota, with 42,000 fewer veterans than Hawaii, has three VA hospitals. We are still waiting for our first VA hospital.

The current system in Hawaii is a fragmented one. It is costly. It is inefficient and places the quality of care rendered to veterans at a great risk.

We receive fine service from Tripler Army Hospital, our major military facility in Hawaii. Inpatient care at this great institution is dependent upon space availability. If there is no space, we are the lowest priority. The veterans are the lowest priority, and understandably so.

Mr. President, as we downsize our military, that downsizing will also affect Tripler Army Hospital.

What does that mean? Fewer beds, fewer nurses, fewer doctors, and with the veterans as the lowest priority, I do not think I need to draw a picture for my colleagues.

Today, many of the united hospital services such as cardiology, orthopedics, ophthalmology—severe limitations and restrictions are placed upon veterans in Hawaii. For example, at this moment, VA cardiology and orthopedic patients are evaluated by visiting

Palo Alto, CA, VA physicians. They come around about twice a year. As a result of that evaluation, they are shipped to a facility on the west coast, usually in the State of California.

Mr. President, I think all fairness and equity would lead us to conclude that to ask our veterans to undergo long, long, separations from their families 2,500 miles from home is not acceptable. I think all physicians would suggest that from the standpoint of long-term care, that is not acceptable.

In 1993, 950 qualified veterans were denied service in Hawaii; in 1994, 1,300 qualified war veterans were denied inpatient service in Hawaii. This year, through the month of May, because of the lack of eligibility and lack of services, 582 war veterans were denied service.

Mr. President, as a member of the Appropriations Committee, I am fully aware of the problems we have. I am fully aware of the budgetary constrictions that we are required to live under. I know that my chairman, the Senator from Missouri and the ranking member, the Senator from Maryland, have done their utmost in their effort to accommodate the veterans of the State of Hawaii.

As it is commonly said, one cannot squeeze blood out of a turnip. It is not my desire to do that.

Reluctantly, I will be withdrawing this amendment with the hope that my colleagues from Missouri and Maryland will sit down and work together with the veterans of Hawaii to see if something can be done.

This can be a national disgrace. We have the highest per capita veteran population, the lowest per capita spending, the highest per capita disabled veterans, highest per capita volunteers, and no hospitals.

Other States with less than Hawaii have three or two. All we are asking for is one. And the one we are asking for is not a hospital. It is a medical center, which is one grade below a hospital.

Mr. President, I hope that my patient colleagues from this subcommittee will join with me in trying to work out a solution for this. I would be glad to do that.

Mr. President, I ask unanimous consent to be permitted to withdraw my amendment.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Ms. MIKULSKI. Mr. President, first I would like to thank my colleague, Senator INOUYE, for his extraordinary advocacy in behalf of American veterans. As the ranking minority member on this bill, it pains me and grieves me that a Senator who bears the permanent wounds of war, who wears with pride the Congressional Medal of Honor, must come before the U.S. Senate and plead for a VA hospital; an American hero coming to speak in behalf of all other veterans of all other wars saying: Please give me a medical center to meet the needs of other men and women who served in the military, who themselves bear the permanent wounds of war.

What we face here is the fact that in Hawaii there is a unique situation because of its geographic location. They cannot go to the trauma centers. Everything has to be in Hawaii. Also, there has been a unique linkage between veterans and military hospitals.

So I want to acknowledge the validity of the Senator's plea. I want to acknowledge the validity of the plight of veterans in Hawaii. I pledge to him the desire, the deep desire, to work with him to ensure that the Hawaiian veterans have the medical care that they need and they deserve, and how we could do a linkage with perhaps the military hospitals and perhaps the private sector.

But I believe that if we are as creative in helping these veterans with their medical care as we have been in other areas of national defense and security, we will be able to do this.

I also thank the Senator for withdrawing the amendment, though I know it is deeply troubling to him to do so. But we have no money in this budget. The only way we could have funded it is if we had gone to the backlog claims. Right now there is a waiting list of over 6 months to 3 years for veterans trying to process their claims for their pensions and their disability benefits. American veterans should not have to stand in line for 6 months or more because of the sluggish nature of the bureaucracy with the way they have modernized, and so on.

So we have now put resources in to deal with the backlog of claims. I am glad we are going to let that stand.

Again, I would like to thank the Senator for his defense of America, for the worthy nature of the Congressional Medal of Honor which he wears and which I see on his lapel this morning, and for his defense of veterans who in many ways do not have a voice; and, of course, for his own constituents of Hawaii.

I also want to acknowledge the staunch defense of veterans and health care of my colleague, Senator AKAKA.

Mr. INOUYE. Mr. President, I wish to thank my colleague from Maryland for her very sensitive and generous concern. But much as I would be most proud to wear a Congressional Medal of Honor, my medal is one notch below, the Distinguished Service Cross. But I thank my colleague.

Ms. MIKULSKI. Well, if I had the opportunity to award the Senator a medal, I believe he deserves the highest recognition for his gallantry and his bravery.

Mr. INOUYE. I thank the Senator.

Mr. BOND. Mr. President, I echo the generous words of my good friend and colleague, the ranking member, the Senator from Maryland. I too appreciate the very strong advocacy of the very able senior Senator from Hawaii. He has met with us and talked from his very heartfelt commitment to the veterans of Hawaii, and he has talked about the difficult situation that the veterans there face. I know how long and hard he has worked on the project.

We were unable to put construction funding in fiscal year 1996 for any major new construction. As the Senator from Maryland pointed out, we fear that the offset would have taken away vitally needed funds for handling claims of veterans.

Second, the committee agreed to a moratorium on new medical construction projects, as recommended by the General Accounting Office and the Senate Veterans' Affairs Committee. The committee's decision was driven by budgetary concerns, as well as based on the fact that the VA is on the verge of a major reorganization which may result in significant changes to its facilities' needs, and we hope a better direction of care.

The Hawaii project would require an additional $60 million in construction costs in the future, and another $100 million to operate when it opens.

Having said that, we look forward to the Veterans' Administration reorganization plan. It is intended to change the VA into a managed care operation. As part of this reorganization, the VA must develop a long-term strategic plan for medical care, recognizing the change in demographics of veterans population, and a shrinking budget.

The General Accounting Office has found that there are additional unused facilities. In the 1993 report, the General Accounting Office found that the Tripler Army Hospital—with which the Veterans' Administration has a sharing arrangement—had capacity and ''Demand for VA-sponsored care at Tripler has consistently been well below the 69-bed constructed capacity'' at Tripler.

As a result of these things, I think the VA should look to increasing its sharing arrangement with Tripler and community facilities in order to meet the needs of Hawaii's veterans.

I fully understand and I am sensitive to the Senator's concern that the VA is sending veterans to the west coast for treatment at the Palo Alto VA Hospital. I agree with the Senator that this is an extraordinary inconvenience. VA has in the past sent cardiology patients to the west coast when services were not available to Tripler Army Hospital because VA says it is less expensive than treating the veterans in a community hospital.

I assure the Senator from Hawaii that I will work with him to see that the VA discontinues the practice and treats veterans in community facilities when services at Tripler are not available.

I pledge to work with the Senator from Hawaii to ensure that excess capacity at Tripler may be used by veterans.

I have offered an amendment, which I would like my distinguished colleague from Maryland to review to see if we

may be able to agree on that amendment, and to see if this will meet the needs of the Senator from Hawaii.

Ms. MIKULSKI. Mr. President, I say to the Senator that this is very acceptable to me because it ensures that the veterans of the State of Hawaii are given appropriate equal access to veteran medical care commensurate with the medical care provided in the 48 contiguous States so that the veterans of Hawaii are not penalized for their geography.

I also want to acknowledge, with the Senator from the majority, that the VA is organizing and modernizing its delivery of care, moving from strictly and chiefly a trauma model to continuing care, emphasizing primary care, to decentralize the services.

So I think we are all in agreement with this. I think this is an excellent amendment. If it meets with the concurrence of the senior Senator and the junior Senator from Hawaii, it is fine with me. I think it is excellent.

Mr. INOUYE. Mr. President, I wish to thank the chairman of the subcommittee for his very understanding and sensitive response to our concerns. We look forward to working with him to someday come up with a solution that will be mutually acceptable for all of us.

But in the meantime, the amendment, I think, will serve our veterans very well.

Mr. BOND. Mr. President, I ask unanimous consent to temporarily set aside the pending committee amendments to offer an amendment.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

AMENDMENT NO. 2778

(Purpose: To ensure that veterans in the State of Hawaii are given appropriate and equal access to VA-funded medical care)

Mr. BOND. Mr. President, I send an amendment to the desk in behalf of myself, and Senators MIKULSKI, INOUYE, and AKAKA. We will leave it open for others to join as cosponsors, as well.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from Missouri [Mr. BOND], for himself, Ms. MIKULSKI, Mr. INOUYE, and Mr. AKAKA, proposes an amendment numbered 2778.

Mr. BOND. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 22, line 5, insert: ''SEC. 111. The Department of Veterans Affairs shall provide hospital care and medical services to eligible veterans in the State of Hawaii at levels commensurate with levels of care provided in the forty-eight contiguous states. The Secretary shall utilize the contract authority prescribed in 38 U.S.C. Sec. 1703 to treat eligible veterans residing in the State of Hawaii wherever appropriate.''

Mr. BOND. Mr. President, as I indicated, we do share the grave concern both Senators from Hawaii have for veterans care in the State of Hawaii.

I urge my colleagues to accept this amendment. I believe the junior Senator from Hawaii wishes to speak, after which, if there are no further discussions on it, I think we can proceed to a vote without a rollcall.

Mr. AKAKA addressed the Chair.

The PRESIDING OFFICER. The junior Senator from Hawaii is recognized.

Mr. AKAKA. Mr. President, I rise in support of the committee action. I commend my colleague for taking this issue forward, and I thank the committee for its considerations.

I stand today just to impress the Senate with the fact that the Aloha State, the State of Hawaii, has needed a veterans hospital for many years. Since 1987, our predecessor in the Senate tried to establish a veterans hospital in Hawaii.

Hawaii is one of two States that has no veterans hospital. Although the VA operates 172 medical centers throughout the Union, including a hospital in Puerto Rico, the Department has never established a medical center for veterans in the 50th State, and this is the reason why my colleague and I have been pressing for this.

Under the circumstances, we will certainly accept the committee's action. And again I wish to thank the committee for what they are doing. This is a step in that direction, and we will be back to ask for more help for our veterans. We have 130,000 veterans in the Pacific, 120,000 from Hawaii and another 10,000 in the Pacific from Guam and Samoa. We take care of these veterans, and we still do not have a hospital there.

So, Mr. President, I look forward to a day when we can come back and seek a full-blown hospital that will help the veterans of the Pacific. I thank my colleague and the committee for their efforts.

I yield back my time.

Mr. BOND. Mr. President, I do not believe there are any other Senators seeking to be heard on this amendment.

The PRESIDING OFFICER. Is there further debate? If not, the question is on agreeing to amendment 2778 by the Senator from Missouri [Mr. BOND].

The amendment (No. 2778) was agreed to.

Mr. BOND. Mr. President, I move to reconsider the vote.

Mr. INOUYE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. BENNETT addressed the Chair.

The PRESIDING OFFICER. The Senator from Utah is recognized.

Mr. BENNETT. Mr. President, I rise to make several comments about the underlying bill.

First, I have a comment I should like to direct to the managers of the bill. I am a member of the subcommittee, and I wish to congratulate the Senator from Missouri and the Senator from Maryland for the outstanding way in which they have handled this particular piece of legislation. It has been a difficult time, and they have been faced with difficult questions and challenges. So I am grateful for my first experience as a member of the Appropriations Committee to serve on this subcommittee and watch Senators BOND and MIKULSKI work through these very difficult issues.

There is one specific issue about which I have talked to Senator BOND that I would like to make mention of in the Chamber to make sure it does not get lost. This has to do with the expiring contracts under HUD housing programs. In the city of Salt Lake, where we are enjoying boom economic times, the vacancy rate for many of these houses is around 1 percent. If people who have contracts that expire are forced to leave their housing at the moment of that expiration, they will have a very difficult time finding additional housing.

I have talked to the chairman, Senator BOND, about this issue and asked him to please work with the authorizing committee to see if there can be an extension of those contracts under this circumstance so people who are in this kind of housing are not faced with the immediate challenge of finding housing in an extremely tight housing market. He has assured me of his willingness to work on this issue, and I publicly thank him for that assurance and tell him that I will be working with him in any way I can to see that this problem gets resolved.

The second issue I should like to discuss has to do with the space station, about which we have heard so much on this floor in the last 24 hours or so.

The Senator from Arkansas, with his traditional persistence, has once again challenged the wisdom of the space station and will once again bring the Senate to a vote on whether or not this should be continued. He does this in every session of Congress, as is his right. Many of us admire him for his tenacity on issues in which he believes strongly. Each time he has failed.

I rise to say that I think he should fail this time as well. In my opinion, the space station should go forward for a variety of reasons, many of which were outlined by our colleague from Ohio, Mr. GLENN, last night. I will not take the time to repeat all of the tangible benefits that the Senator from Ohio listed, but I will call the attention of the Senate to his presentation because it was an excellent one.

There is an interesting juxtaposition of events in this debate for me. Just last week, in Utah, we have had the fourth edition of Space Talk, a conference on space that I had the honor to originate back in 1992.

In 1992, there were not very many people who were interested in coming. I was then a candidate for the Senate, and they thought it was just an election year gimmick for me to get some out-of-State speakers to come to the

State and, hopefully, get a little press and link that press to my name and thereby help me in the campaign. But I promised on that occasion that if I were elected, I would continue this annual conference on space and the issues of space that have grown into Space Talk.

I am delighted to be able to report to the Senate that Space Talk has grown every year, has been more and more successful every year, and that the centerpiece of Space Talk in terms of public awareness has been the exhibit at the Utah State Fair.

When we first put it on 3 years ago, NASA was a little nervous about bringing exhibits all the way to Utah, but they were willing to try it. We got the appropriate cooperation from the State fair board and the Utah National Guard and mounted the exhibit.

NASA was stunned at the response that came from the citizens of Utah in general and the schoolchildren of Utah in particular. Space Talk became the No. 1 attraction at the Utah State Fair, and fair officials said to us, ''You must bring this book next year,'' which we did. And then again this year NASA brought a mockup of the space station to Space Talk, and once again this year it was the No. 1 attraction at the Utah State Fair. Many schoolteachers would plan field trips to the State fair just to come to Space Talk, so that the schoolchildren could get the educational experience of finding out about space.

The space station mockup this year made a strong point of outlining those portions of the space station that would be built by other countries.

''This would be the Japanese section of space station,'' we were told as we walked through the mockup. ''This is where the Europeans will be working. This is where the Russians will be,'' and so on, demonstrating that the space station is not only a technological breakthrough for the United States, but it represents an international exercise in understanding and cooperation that can have fallout far beyond the technological areas, but in the diplomatic area as well.

So, coming off this successful and growing support for our Nation's space program in Utah, I come now to the floor of the Senate to find once again an effort to cut back our activity in space and particularly with respect to the space station.

Now, Mr. President, there is a quote that has been used many times. But I am going to repeat it. I have discovered since I have been in the Senate that there is no such thing as repetition. We go on again and again and again and always act as if it is new. I think my friend from Arkansas will understand that, because most of the arguments he is raising against the space station are repetitious of arguments he has raised before.

So I think this quote deserves repeating. It is by the historian Samuel Eliot Morison. He said, ''America was discovered accidentally by a great seaman who was looking for something else. When discovered, it was not wanted, and most of the exploration for the next 50 years was done in the hope of getting through or around it. America was named after a man who discovered no part of it. History is like that. Very chancy.''

We look back on Columbus and his activity here and Amerigo Vespucci, after whom it was named, and the lack of activity that he put forward here, and we see the truth of the historian's comment, ''History is like that. Very chancy.'' But as we look at history as a whole, we realize that out of the chanciness of history comes a whole series of unexpected benefits or, in some cases, unexpected difficulties.

I was interested, Mr. President, at one of the Space Talk presentations to be told by one of our speakers that prior to the great European era of discovery in exploration when the Europeans ended up coming to these shores and for them discovering what is now called America, there was another nation that was a great explorer nation, sending out ships onto the uncharted seas for the sole purpose of seeing what they could find. The ships of this great nation ended up ultimately on the shores of what we now call Africa, a tremendously exotic discovery for those who sailed the ships. The great nation that sent those ships out on that discovery mission was China.

Now, whoever governed China in those years decided that they had budget problems at home and that it was time to cut back on the exploration, that they had more urgent budget pressures domestically, and so they stopped their exploration. They brought the ships back, and they became wholly insular in their administration.

I have stood upon the Great Wall of China, which I think stands in history as one of the prime examples of a public works project gone wrong. They started building it and they simply could not stop. And so in their budget priorities to do something for home, they built the Great Wall that stands in great disrepair, and it serves primarily now as a tourist attraction. They turned their back on the exploration that would have made the Chinese, and not the Europeans, ultimately the masters of the world, as the Europeans picked up the challenge of exploration, not knowing what they were going to find, not knowing what the return would be, but, in fact, laying the groundwork for the ability to govern the entire world.

Mr. President, history is like that. Things start out very small, with unintended consequences later on. We do not know who first thought of the notion of interchangeable parts, the idea that instead of building every carriage fresh and new as a single work of art, you would build a series of axles, every one exactly alike that would be interchangeable with each other so you could assemble a whole bunch of carriages. But upon the principle of interchangeable parts rests the concept of mass production and ultimately the entire industrial revolution, a simple little idea that somebody started somewhere, we do not know, upon which the entire world was changed.

Just when we get used to that concept, let us think then of the notion of digital code. Somewhere, somebody—probably the historians know this name, but I do not—came up with the idea that a switch is either on or off. And if you line up enough switches in a row, you can create a computer that by calculating whether this row of switches are either on or off, can do calculations beyond the human ability to do those calculations.

So early computers were built with the understanding that a transistor was either on or off. And those computers were created primarily to make calculations concerning ballistic projectiles for wartime. If we shoot this, what is the trajectory it will follow? We cannot figure it with pen and pencil or even slide rule. Let us get a bunch of switches lined up and put electricity through them; and through writing digital code, we figure that out.

From that, of course, has come the entire information revolution that has changed all of our lives, and an idea that someone who started out had no concept of. Now we come, of course, to the space station.

Can I tell the Senator from Arkansas what is going to happen in the space station? No; I can tell him the experiments that will be run. I can tell him the efforts that will be made. But I cannot tell whether or not some discovery as simple but as far reaching as the notion of interchangeable parts or the notion of digital code will come out of our activities on space station.

We do know the kinds of things that can happen on space station. It will serve as a laboratory for materials processing in zero gravity. We have never been able to do that before. There are a myriad of industrial and scientific research projects that can be run in that kind of an environment. It will provide a platform for astronomical observations, the study of our Earth's development and current conditions. Then it will provide a base to further the exploration of the solar system as the first component in a space-based international industrial park.

Well, maybe we cannot put a dollar value on this. And unable to put a dollar value on this, maybe we should do as the ancient Chinese mandarins did and say, ''Bring the ships home. Let us spend our time taking care of our domestic priorities. Leave that for some future time.''

I believe if we do that, the human spirit to explore is sufficiently strong elsewhere that we will see someone other than the Americans take over this lead. I think we will see Europeans or someone else, maybe not yet on the screen, some Asians, perhaps, as those

economies become stronger, step into the void that we will create if we abandon this leadership challenge.

So, Mr. President, I rise once again in support of space station. I rise once again in support of the spirit of exploration. I rise once again in support of the great human spirit of adventure that has served us so well throughout the centuries. And I call upon us not to make the mistakes of others who have turned their back on this only to discover in subsequent years that other human beings have not lacked this spirit of exploration, and the torch is passed from American hands to those who might wish us ill.

For these reasons, Mr. President, I support the space station and urge the rest of the Senate to do likewise.

Mr. BOND addressed the Chair.

AMENDMENT NO. 2776

The PRESIDING OFFICER (Mr. CAMPBELL). Under the previous order, the hour of 11 a.m. having arrived, the Senate will resume consideration of the Bumpers amendment No. 2776, on which there will be 90 minutes of debate equally divided.

Who yields time?

Mr. BOND. Mr. President, I yield myself 1 minute just to thank the distinguished Senator from Utah for his very, very compelling arguments with respect to the space station. I think his historical perspective adds a great deal to this debate. I find it a very compelling argument.

I also want to say I appreciate his comments with respect to the problems faced with housing where housing is in short supply, as in his State. He has been a very forceful advocate for assuring that those people who depend upon assisted housing in Salt Lake City and other Utah communities not be thrown out. We are working with him and other Members to give HUD the opportunity to make sure that people do not lose very scarce public housing.

With that, I yield the floor.

The PRESIDING OFFICER. Who yields time?

Mr. STEVENS addressed the Chair.

The PRESIDING OFFICER. The Senator from Alaska. Does the Senator from Alaska wish time from the Senator from Missouri?

Mr. STEVENS. I did not know there was controlled time.

Mr. President, I would like 4 or 5 minutes to discuss a situation in my State and to ask a question of the managers of the bill.

The PRESIDING OFFICER. The Senator has 5 minutes.

TYPHOON OSCAR AND EMERGENCY RELIEF FUNDS

Mr. STEVENS. Mr. President, Typhoon Oscar, which came across the North Pacific, has wreaked havoc in the Kenai Peninsula of Alaska. I have been on the phone yesterday and today following reports we received over the weekend concerning the effect of this typhoon. It has caused flooding of many rivers, the Kenai River and the Skwentna River.

The damage runs from Seward, AK, over to Kenai. It is threatening the Alaska Railroad. As it goes down into Seward, they apparently lost part of that railroad bed already. The area has now been declared to be a disaster area under State law, and we are waiting to have the Federal Emergency Management Agency, FEMA, people come into the area to determine what is going to be available to assist in terms of recovery from this disaster.

The Kenai River is on a rampage. Unfortunately, it has destroyed a considerable amount of work we did to rehabilitate that river in the last 2 years in order to protect it. It is the greatest king salmon-producing river in the world. It is a substantial disaster for the area because of the loss of homes and really the loss particularly of recreation facilities along the river.

I have come to the floor because I am aware, as a member of the committee, of the report on the pending bill that indicates that there are no new funds provided for disaster relief in this bill. The report points out that the reason is that in the emergency funding bill of this year, 1995, Congress made available and the President approved $6.55 billion to be added to the disaster relief fund.

I am sorry I was not aware of the controlled time situation, and if I am taking time from my friend from Arkansas, I will be glad to try to work that out with him.

I would like to ask the managers of the bill about this disaster relief fund. The question has now been raised with me that the money in the fund has already been earmarked for previous disasters and whether there is going to be money available during this period.

Obviously, the final result of FEMA will not be known for a period of weeks. I am going to dispatch two of my assistants to go to the area this evening to make sure that we are getting all the coordination we can among the Federal and State and local people because, as I said, it is a very serious flood. It is already above the 100-year-flood mark on the Kenai River. That means we are going to have even more damage than was estimated.

The damage in the one area alone of the Kenai is somewhere between $6 million and $10 million in terms of just immediate damage. I do not know what it is going to be in terms of the loss of roads and railroad bed and tank farms and all the rest.

May I ask the chairman of the subcommittee, in terms of the report, it indicates there is currently a fund balance of approximately $8 billion in disaster relief. Has that been earmarked already? Is that available for disasters such as the aftermath of Typhoon Oscar?

The PRESIDING OFFICER. The Senator from Missouri.

Mr. BOND. Mr. President, first, let me thank the Senator from Alaska for bringing this to our attention. The areas of which he speaks I am very familiar with. The Senator has been a leader in restoring the habitat on one of the most pristine rivers in America, certainly a national treasure. We are deeply saddened by the damage and by the environmental destruction that is going on there.

I will say to the Senator from Alaska that we did not include funding in this bill for the disaster relief fund because there is currently an $8 billion balance, none of which is earmarked. So long as the President declares a disaster in Alaska, those funds are available to meet the needs.

I join with the Senator in urging the people of FEMA to respond to provide assistance and assess the damage to make the necessary steps to determine whether a Presidential disaster declaration is appropriate and to lend all appropriate assistance. We have great concern for the residents in that area and also for the tremendous natural resources, as well as the human infrastructure that has been built there.

We are very sorry to learn of this problem and assure the Senator from Alaska the funds are available should a Presidential disaster declaration be made, and we urge FEMA to respond to the Senator's concerns as quickly as possible.

Ms. MIKULSKI addressed the Chair.

The PRESIDING OFFICER. The Senator from Maryland.

Ms. MIKULSKI. Mr. President, I echo the chairman's comments, first to the people of Alaska, of our deep concern. As the Senator knows, I have visited Alaska. Though I do not have intimate knowledge with the specifics of the areas that he has talked about, I can only imagine the really sad impact. We believe in helping communities to be able to rebuild themselves and restore themselves. I hope that the President will declare this a disaster area.

How we ultimately fund the actual disaster account is a subject of which we have had extensive hearings for which we would require an authorizing solution. I know this is not the time or the place to debate that. I think that is a good topic for 1996.

Mr. STEVENS. I want to make certain it will not be incumbent upon me to offer an amendment at this point to put money into the disaster relief fund because of the feeling that there is a zero amount in this bill. The indication was there would be none available in fiscal year 1996. It is my understanding this $8 billion is available and carries over to the next year; is that correct?

Mr. BOND. That is correct.

Mr. STEVENS. Mr. President, I do thank the managers of the bill for their response. I am certain this will be welcome news to the people of south-central Alaska. In 1986, we had an epic flood in this region. It was declared to be the 100-year flood. As I said, this flood this year exceeds the limits of the 1986 flood, so we have really a new record in terms of flood in the area. It is going to involve a considerable amount of not only disaster assistance but work to try to find some way to handle these floods as they are coming

into this area, because we are having really new stages on these two rivers as they reach flood stage.

I ask unanimous consent to have printed in the RECORD following my remarks the report on this flood that appeared in the Anchorage Daily News of Saturday.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. STEVENS. I will be sending two of my assistants up to look into this, including Mr. Staser, who is with me right now. He is formerly with the Corps of Engineers. We would like to do everything we can to assist in bringing this to a speedy conclusion. This is a tough time for Alaska, as I am sure everyone knows. We are near freeze-up now. This kind of disaster coming right at the tail of the fall period, which is not too long in this area, can mean real difficulty. If we do not get assistance in there this year in time to take care of these problems before the freeze-up there, we will be in real trouble. I appreciate the offer of assistance from my two friends. I appreciate the courtesy of the Senators. I will not offer the amendment under the circumstances.

EXHIBIT 1

[From the Anchorage Daily News, Sept. 25, 1995]

KENAI RUSHES INTO BIG EDDY

(By Tom Kizzia)

Rising flood waters hit homes along the Kenai and Skwentna Rivers on Friday, while residents of other Southcentral Alaska communities began repairing facilities damaged in flooding this week.

In Girdwood, city and state workers were moving heavy equipment to Glacier Creek in an effort to protect a bridge from the muddy torrent. Flood waters also damaged the road leading to the Crow Pass trail head, prompting the U.S. Forest Service to close the road.

An icy Kenai River current several feet deep pushed through the Big Eddy area in Soldotna Friday afternoon, shoving picnic tables and propane tanks downriver. Recreational trailers and camps were under water in the low area, which sits in an oxbow of the river.

''This is some serious stuff going on here,'' said fishing guide Joe Hanes, who had his boat tied off to the deck of his home at Big Eddy as water raced through his foundation pilings. He said the river was 3 feet over its banks at noon Friday.

Swollen by rain in the mountains of north of Seward, the Kenai River has risen more than 5 feet at Cooper Landing since Tuesday, putting it about 2 feet above flood stage, according to the National Weather Service. Roads in the Kenai Keys subdivision were under 3 feet of water.

Forecasters predicted the river would peak in Soldotna about midday today.

The Kenai flood appeared to be undoing some of the work done by landowners to halt erosion and improve fish habitat along the river's banks. Fragments of boardwalks and floating docks were mixed in the debris floating downriver Friday.

''I think this took people by surprise,'' said state park superintendent Chris Titus. ''Everyone was focused on what was happening in Seward and the eastern Kenai Peninsula. We haven't gotten a lot of rain here.''

State park officials closed the Kenai to boat traffic Friday afternoon because some fishermen continued to dodge floating oil drums and cottonwood logs in their pursuit of silver salmon. The boats also were creating wakes that in some cases sent water spilling into homes in low areas.

Three days of heavy rain in the western Susitna Valley brought heavy flooding Friday to Skwentna and the Lake Creek area. Residents gathered at the Skwentna Roadhouse, as 50 to 75 buildings had been hit by the flood, according to Matanuska-Susitna Borough officials.

Joe Delia, who runs the Skwentna post office, said at least six homes there were flooded and several boats had been swept away. Water lapped at the edge of the runway and had surrounded the school, he said. The river itself slowed as it spread across the flat land adjacent to its former banks, but the main channels remained turbulent and full of debris.

''It's pretty hairy in some places,'' he said. ''There's cottonwoods, and big rafts of timbers and rollers 2, 3, 4 feet high in some places.''

Gov. Tony Knowles on Friday declared the Kenai Peninsula Borough, Mat-Su Borough and the Municipality of Anchorage, which includes Girdwood, disaster areas. The proclamation qualifies the areas for emergency state funding. Knowles said the state was backing an application for federal disaster assistance for the Seward area, where officials are estimating $4 million to $6 million in damage from floods this week.

Flooding wiped out parts of several waterfront roads in Seward and poured silt into the city's harbor. The state ferry had to be diverted from Seward to Homer because officials thought the docking area had been filled in with silt from the Resurrection River. Railroad service has been suspended indefinitely.

City spokeswoman Linda Murphy said less rain fell this week than in the fall of 1986, during the last epic floods in Seward. But damage from the Resurrection River this time was worse, she said.

''When all this is over, we need to stop Band-Aiding (the Resurrection River) and fix it,'' Murphy said. ''I'm not sure how. But we can't continue the way we've done.''

Murphy said inmate volunteers wearing plastic trash bags for rain protection were filling sand bags at Spring Creek Correctional Center, the state maximum-security prison in Seward.

The Old Glenn Highway between Palmer and Anchorage was closed Friday morning at the Knik River bridge after water ran across the road north of the bridge, said Mat-Su Borough spokeswoman Pat Owens. Water from the Knik River covered roads in the nearby Windsong subdivision, but houses there were still above water, Owens said. Much of Knik River Road, which starts on the south of the bridge, was also closed after a creek near Mile 2 sent more than 2 feet over it.

Residents of low areas in Seward and along the Kenai and Knik Rivers were being warned about possible contamination of well water by the flooding. Residents should contact nearby offices of the Department of Environmental Conservation about testing their water, disaster officials said.

Borough officials were also worried by swollen creeks and rivers in the Lake Louise and Nelchina areas, where hunters of moose and caribou may find themselves trapped. Owens said airplanes are searching the area, and helicopters may be called in to lift out hunters who might otherwise try risky river crossings.

The week's heavy rains were the result of an unusually powerful low pressure system that move north of the Pacific, mixing with the remnants of Typhoon Oscar, said Richard Hanas, lead forecaster at the National Weather Service in Anchorage.

AMENDMENT NO. 2776

The PRESIDING OFFICER. Who yields time?

Mr. BUMPERS addressed the Chair.

The PRESIDING OFFICER. The Senator from Arkansas is recognized for 45 minutes.

Mr. BUMPERS. Mr. President, is the time just used by the Senator from Alaska charged against our time?

The PRESIDING OFFICER. The time has not been charged to either side. So the Senator from Arkansas has 45 minutes.

Mr. BUMPERS. I thank the Chair.

Mr. President, I said about all I know to say yesterday afternoon about this subject. I do not know that anybody listened, and I do not know that anybody is listening this morning. But when you are talking about $94 billion, somebody ought to be listening.

Just for openers this morning, I want to recommend to my colleagues an article that appeared last year in Newsweek magazine, which I will be delighted to furnish to anybody who is curious. It is called ''NASA Space Station Zero Boondoggles; $11.9 Billion Has Been Spent So Far. Can Anybody Explain What it is Supposed To Do?'' That is the headline. It is a very telling article. It does not answer the questions because NASA cannot answer the questions. Here is one paragraph in this article, and it is replete with similar paragraphs.

> Yet, with the silly problems of the space station corrected, the serious ones stand, in greater degree, still unanswered. What's it for? ''It is primarily a research platform,'' said Randy Brinkley, manager of the space station office at the Johnson Space Center. ''There will be life science, but we haven't finalized what. Really, it is hard to answer that question.''

As for its prospects as a research platform, the National Research Council, a preeminent organization in this field, says the station ''cannot be supported on scientific grounds.'' Many scientific organizations have announced opposition to the space station.

Mr. President, if you want to get up and argue or if any Senator wants to argue that the space station is going to cure cancer, AIDS, arthritis, or multiple sclerosis, be my guest, I will listen very intently. We have been in space for 30 years. The Russians have had space stations up since 1971—seven of them. I want the opponents of this amendment to tell the Senate what we have accomplished so far as life science is concerned. Name me the pharmaceutical companies who are contributing their own money to the space station. Name me one medical research organization in America that is contributing a thin dime to this gigantic research laboratory in space. Every single scientist worth his weight in the country, every single medical researcher in the country says you cannot justify this on the grounds that

you are going to get some kind of life-saving pharmaceuticals out of it.

As a matter of fact, the American Physical Society said, on January 20, 1991: ''Scientific justification is lacking for a permanently manned space station.''

Dr. Bloembergen and Dr. Rosenthal, both at Harvard, say you cannot justify this because, so far as we can tell, there is absolutely nothing to get out of it.

As for microgravity. Well, we can do research in almost zero gravity. So what. You can do that on Earth and in satellites. One semiconductor company president has said, ''Do not build that thing because you think you are going to get gallium arsenide wafers out of it; we do not want the wafers.'' It is an utter, utter waste of money to try to grow crystals in space. You might grow some, but you can never make anything economically viable.

And then the spinoffs—if there are so many spinoffs, why is American industry not hot to contribute to this almost $100 billion project? It will certainly run well over $100 billion over the next 17 years; $94 billion is the present estimated cost of the space station. Bear in mind, that assumes everything is going to go split perfectly. No disasters on the launch pad, no malfunctions like on *Apollo 13*, no debris in space hitting the station or any of the shuttles, or anything else. No, you get it for $94 billion only if everything goes absolutely perfectly.

I heard the junior Senator from Texas last night talking about Velcro. I covered that as well as I could yesterday in talking about spinoffs, such as Tang, the orange juice substitute that the astronauts drink. It has been around for 35 years, long before we ever went to space. Then there is Velcro and magnetic resonance imaging. The space program had absolutely nothing to do with any of those things. Yet, people continue to talk about those spinoffs. I am willing to admit that we got one spinoff. We got a space suit. The demand for space suits is not just great enough in this country to warrant a $100 billion expenditure. I do not want one. I do not have a friend that wants one.

I will tell you what it is all about. Right here on this chart. Eighty-six percent of the money spent for 14,000 jobs goes to California, Texas, Alabama, and Florida. So the Senators, as far as I am concerned, from those States, get a pass. Go ahead and vote for it. For the other 46 States, who put more into the space station of their tax money than they get back, what is your excuse? Now, it is not unusual around here for people to vote for big expenditures because there are some jobs in their State. I have done it, and we all do it. It is not unusual to vote for big-ticket items that big corporations who have big PAC's and big contributors want. I want to tell you before you vote, remember that 86 percent of all the money is going to these four States.

Now, Mr. President, we had a revolution last fall. The Republicans wiped the Democrats out. Everybody has been analyzing it ever since. What happened? How did it happen? Why are the people so upset? Why are they mad?

I do not know the answer to it. I wish I did. I think it is a serious question. Certainly it is serious for my party.

Let me make a couple of observations. We are getting ready to spend $32.7 billion over the next 7 years on this space station.

Now, let me ask you, where is the money coming from? Take your choice. I want you to listen to this: $32.7 billion for the space station, which has absolutely no tangible payback to the American people.

Where do we find the money to do it in these budget constrained times? As I say, take your choice. We are cutting education over the next 7 years $40 billion. What do you get out of this? A lot of ignorance.

We are cutting the earned-income tax credit, according to the Senate version, $40 billion, which represents a $457 annual tax increase for the poorest 17 million people in America who work, that are not on welfare.

Ask yourself, is it fair to penalize the people who are working to feed, clothe, house, and educate their children and the lowest paid workers on Earth trying to stay off welfare? Is it fair to levy a $457 tax increase against them to pay for the space station? If you believe that, vote against my amendment. If you think this country will be better off when we cut education by $40 billion over the next 7 years in order to fund the space station, you vote against my amendment.

If you think it is right to cut Medicare by $270 billion—and I am willing to participate in some of that; not to provide this massive tax cut we are talking about, but simply because we do have to do something to salvage Medicare—do you think it is fair to cut Medicare by $40 billion of that $270 billion in order to pay for this?

Do you think it is fair to cut $180 billion in Medicaid which provides health care for the poorest of the poor—yes, working people, too—to pay for this? If that is what the revolution last fall was about, then God save America.

What else are we doing? We are spreading the already terrible disparity of income in this country. Everybody knows and they talk about it, but nobody wants to address it. The disparity between incomes in America is twice as great as any of the 18 developed nations on Earth. The only country even close is Britain and we have a 2-to-1 margin on Britain.

How do we rectify this? We raise taxes for the poor, we cut health care for the poor, and we provide $250 billion in tax relief—for the poor?; no—for people who make over $100,000 a year. That includes everybody in the U.S. Senate.

Yes, Senators, you will get a nice tax cut next year. So what happens to the working poor who have two or three children and because of the exemptions for those children do not make enough money to pay taxes? Do they get any of it? No.

When you read in the paper that the tax increase proposed by the Republicans provides $500 tax credit for each child, do not believe it. That sounds so good. Is that not wonderful? That is a family issue, is it not? We will give it to families.

One of the biggest hoaxes ever pulled off in this country—yesterday, I alluded to a woman I knew who is a waitress. She has two children. She has to keep both of them in day care in order to work and stay off welfare. The chances of her getting $1,000, $500 for each one of her children, is point blank zero. But Members of this body, Members of this body who have children will get it. All of this so we can pay for the space station?

I could go on and on. The list is endless.

I saw in the reconciliation bill passed out of the Senate Energy Committee big relief for the oil companies, the biggest corporations in America, if they drill below a certain depth in the Gulf of Mexico or off shore. It seems they they cannot take care of themselves. We have to give them a big tax royalty bonus to drill.

The Minerals Policy Association says there are 625 applications for lands that have billions and billions of dollars' worth of gold, platinum, palladium, silver underneath it, from the biggest mining companies in the world. What do we do? We mandate that the Secretary of Interior give them a deed as we have done on 3.2 million acres of lands in this country since 1872.

The 625 applications for deeds which Secretary Babbitt will have no choice but to deliver to the biggest mining companies on Earth for $2.50 to $5 an acre has over 15.5 billion dollars' worth of gold, silver, and hard-rock minerals under it.

How are we going to pay for that? You already heard me give speech after speech on that subject. We are going to cut $70 billion off of welfare—very popular in this country. Those worthless, no-good, shiftless people on welfare. Some of them are indeed no-good, shiftless people. But some of them simply did not happen to choose their parents as well as I did. That is their only sin. They did a lousy job of picking their parents.

What are we going to do? We are going to bless the poor unless they get pregnant at the age of 17. What are we going to do with food stamps? We are going to cut food stamps. Maybe we can get a few more homeless people on the streets. All so we can pay for the space station.

Mr. President, the National Institutes of Health, who do honest-to-God research—go out to the National Institutes of Health and ask what have they done. They have developed antibiotics; they have developed all kinds of drugs

that give AIDS patients a little longer life; chemotherapy for cancer patients. They are doing honest-to-goodness research—a new chicken pox vaccine for our children, a new hepatitis vaccine for our children. Not one person in America quarrels with that priority.

I had pneumonia twice before I was 6 years old and all my mother and father could do was pray. There were no antibiotics, nothing. When I was in the Pacific in World War II, we took sulfur to keep from getting malaria, sulfur developed by the National Institutes of Health. You will not get sulfur, you will not get penicillin, you are not going to get anything out of this $100 billion expenditure.

I might just say here that the 40,000 physicists in this country belong to an organization called the American Physical Society. Do you know who one of the strongest opponents of the space station is? It is the American Physical Society. Do you know why? Because they know the benefits are very, very minimum and the costs of real research very, very great. They have a 50-percent backlog at NIH of applications for good research. And, yet, this space station is like Rasputin. You cannot kill it. There are too many big corporations, too many jobs—14,000 jobs at $147,000 each. I would like to go to General Motors and say, ''You know I come from a poor State. We need jobs. We will give you $147,000 for every job you create in Arkansas.'' General Motors would say, ''Where would you like for us to locate?'' That is what these jobs cost, $147,000 each.

You can buy chicken downtown at the Giant grocery store for 69 cents a pound. But once you deploy this thing and you start sending chicken up to them to eat, it is $12,880 a pound. For 10 years of the operation of the space station, we will spend $25 million every day. Can you fathom such a thing?

For every pound of water we send to the astronauts to drink, $12,880 a pound. That is in today's dollars; it will be more by then.

Your mother used to tell you, ''Oh. Such and such is worth its weight in gold.'' The space station cost 25 times its weight in gold. That is right. The weight of the space station is 25 times the cost of its weight in gold.

Carl Sagan says the only scientific reason in the world to build a space station—and he is not alone; every single physicist in the country says—the only justification for the space station is to explore Mars and beyond.

So when you vote against this amendment today—and a majority of Senators will. This is my sixth year, I guess, to try to kill it. When you vote no today, you are going to be voting to go to Mars. In today's dollars that is $500 billion. That is twice NASA's budget every year for 20 years to go to Mars. Why? Because it is there. It is like climbing a mountain.

Mr. President, Carl Sagan, as I was about to say, is a fine man, a good scientist, and he favors the space station because he says it will help us go to Mars. He says the only justification for this is to explore Mars and beyond. If you believe that, vote against this amendment. I would like to go to Mars. I would like to be able to fund this space station if we had a balanced budget and if we were not cutting every defenseless person in America.

So, Mr. President, I have other people who are here who wish to speak. I thank them for it. But one final point on international cooperation, which Carl Sagan says he thinks justifies this program, is that the Russians are going to participate. Do you know why? We are going to give them the money. We are going to give them the money. And, by the way, where are the launches in Russia going to come from? There will be no launches in Russia. The launches will come from Kazakhstan, not Russia, where the cosmonauts of Russia are located.

So I would like to say, for gosh sakes, colleagues, do your duty in the certain knowledge that my amendment will be defeated, and what a tragedy. Our priorities are so terribly skewed.

I yield the floor.

Mr. BOND. Mr. President, I yield 8 minutes to the Senator from Montana.

The PRESIDING OFFICER. The Senator from Montana.

Mr. BURNS. I thank the chairman, Mr. President.

Mr. President, I rise in opposition to the amendment proposed by Senator BUMPERS to shut down the space station. He is correct when he says every year for the last 6 years he has introduced this amendment to eliminate all funding for the space station, in effect killing the programs that have provided most of the technological advance and promises for many more, and, of course, it promises to have many more to come.

Mr. President this program is probably one of the most vital programs we have when we start talking about science and technology and research, and it is a catalyst that spurs the curiosity of all the young people going into those fields. The space station is the driving force for emerging science and technology and the inspiration for young people. It makes them want to excel in the sciences and, of course, in math. To dampen the spirit of our children to succeed in science and math, and that education, would be by dampening this space station and killing their hopes for the future. You cannot put a price tag on that. There is no way to measure that. But I know one thing; it is not measured in dollars and cents.

The international space station is the most important U.S. space effort since the Apollo program, and its foundation for the future in human space flight programs in the post-cold-war era. It combines America's technological mastery, the United States' international leadership, and the pioneering spirit from which Americans find themselves in the center of modern history.

Nobody supports reducing the Federal deficit or balancing the budget more than I do. But we also have to worry about the pioneering spirit that really is the foundation of building this great country. We cannot afford not to do that.

Let me make an analogy. Let us draw from another time. Maybe it is a pretty important time for the State from which Senator BUMPERS comes from. But let us compare this time to the time of President Thomas Jefferson when he requested support of the Lewis and Clark expedition that finally led to the Louisiana Purchase—or it was after the Louisiana Purchase. At the time of Jefferson's request, about half of the Federal budget was going toward debt retirement and interest on the national debt. He requested $2,500 for that expedition. We all know what that expedition did for our country. Personally, I know what it did for my State—not my home State of Missouri but of my home State now of Montana.

Today the interest on the national debt is around 14 percent of the Federal budget, and the space station request is one-seventh of 1 percent of the Federal budget.

So I would say that both the President and the Congress have the multiyear balanced budget plans, and the full funding of the space station which is included should stay there, and is a bold step. And another bold step would be making that investment in the future. It is the right way. It is the right thing to do.

America does have a role in shaping the future of humanity in the 21st century, and it should be no less than what it was. It has been great. But also it is our big step in space. There are many justifications that are cited for the program: It stimulates technology and provides commercial opportunities. And if we will look to see the direction in which we are going, we are going in that direction; more commercialization will be a part of NASA.

The fundamental reason though basically is it expands the frontier, the frontier of knowledge and understanding, a frontier where humans can live and work.

The space station is an international space station. It is a cooperative program. It draws the resources and the scientific expertise not of just the United States but 13 nations. So cancellation would severely undermine the credibility of this country with its international partners. International investments in the station are substantial and represent the centerpieces of the space program of our international partners.

I chair the authorizing committee of NASA. It has had its troubles in the past, but for the last 3 years it has been within, and sometimes under, cost and schedule, and that has been something unusual, because we have taken a personal interest in NASA to make sure it does what it is supposed to do, when it is supposed to do it, within budget.

We have tried to iron out its problems. We have a director who, before he was ever told there were going to be cuts, walked up to the bar and said, ''I will take $1 billion out of my budget a year for the next 5 years if that will help you on the Hill to balance your budget and still keep this very vital, important program underway.''

This Thursday, aboard the space shuttle, the United States will launch its second microgravity laboratory which will be in space for 16 days. The mission will be a precursor to the space station laboratory. We will try out a lot of things.

I held a hearing last May on the space station. From that hearing, the subcommittee determined that NASA has overcome some of those problems I was talking about earlier and they are ready to come up to the bar, deal with those, finish the development, and start using this unique laboratory that we will use for a long, long time.

By the way, Lewis and Clark had their problems getting started, too. They underestimated by a factor of three the number of people required to execute the expedition. So what else is new? Everything we have done always operated under Murphy's Law: Anything that can go wrong will.

But if you look at the history of our space program, from the day of inception, when we had a President stand up in this town and inspire this country to reach out into space, it has probably been one of the most successful that we have ever undertaken, especially going into the unknown, dealing with technologies that were unknown at the time.

Today, our manned flight program represents the pinnacle of human achievement and it transcends everybody in this country. It is a center of pride. It is that part of America that is the example of what we are as a people. We are a curious people. We are people who reach out. Only this country can do it. And some pride has to be taken for that.

I am committed to this project, not merely because of the high technology jobs it brings to 37 States, but because it is the right thing to do for America.

I noticed with interest the map of the Senator from Arkansas. I did not see Montana as one of those blackened in places that receives all the aid money. But I know the effect it has on our young people whenever a shot goes up, and as we perform some of the successful operations in research and development practices in space. We should not be so shortsighted to shackle ourselves to this planet. After all, space is the next frontier.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. BURNS. That concludes my remarks. I yield the floor.

The PRESIDING OFFICER. Who yields time?

Mr. DORGAN. Mr. President, by consent of the Senator from Arkansas, I yield myself 5 minutes.

The PRESIDING OFFICER. The Senator from North Dakota [Mr. DORGAN] has 5 minutes.

Mr. DORGAN. Mr. President, this is not a debate between those who support a space program and those who do not. It is not a debate about whether there ought to be a pioneering spirit in this country. The question is, Should we build this space station? I have supported the space program. I think some of the things we have done in our space program have been breathtaking. I am enormously proud of our astronauts and the people who have developed this space program.

The question for this Congress is, should we build this space station? The point is that the purpose for which the space station was originally developed represents a purpose that the space station can no longer achieve. Most of the scientific data indicate to us that if we build this space station as it is now conceived, it will represent a giant funnel through which will go an enormous amount of research dollars, taking away from so many other important research projects—yes, space research projects —that there simply will not be enough money available for things we are doing because it will all be sunk into this space station.

So it is not about the space program. It is not about the pioneering spirit. It is about this space station. It is about choices, hard choices, tough choices. I suppose everyone here would say if we can do it all, let us do it all. Let us build the space station. But the forced choices as a result of the fiscal policy problems in our country need to make us look at all of these issues and say, are there ways for us to do this better, less expensively? Must this be a manned space flight in a space station? Can there be microgravity experiments and work done in space with automated space flights?

The answer is, of course, yes. It is less expensive to do it that way, in fact. So I am supporting the amendment offered by the Senator from Arkansas. He is correct about other choices, as well. He said this is a set of choices. If we do not build the space station, what else can we do? What else needs to be done in this country? I said a year or so ago, when I was in the Chamber, nobody is going to give a plaque to the Senator from Arkansas for coming here trying to kill something. There will be a banquet someplace tonight in town, I am sure, where someone is going to invite a Member of Congress and give him a plaque in recognition of his achievements.

What are his achievements? For helping that group or that industry or that organization build something or get something, the man of the year probably, or the woman of the year. That is the honor. Nobody is going to give a plaque to the Senator from Arkansas for trying to kill the space station. But he comes to the floor with an amendment which raises a critically important question for this Senate: Is this the way we should spend our money? Will this advance our interests? Will it advance our space program, in fact? That is the question he raises.

This is an interesting time. We have already been told just recently, a week or two ago, that we must now advance a program called star wars or the anti-ballistic missile system, and we must deploy it almost immediately—1999, the first deployment. We can afford that. We can afford trucks the Department of Defense did not order, jet airplanes they said they did not want. We say, well, we cannot afford, however, Head Start for 350,000 kids that are now getting Head Start. So we are going to take 350,000 kids and say, ''We are sorry; we cannot afford you and the Head Start Program.'' We are going to say to 600,000 kids in inner cities, disadvantaged kids, ''We are sorry. We do not have enough money for summer jobs for disadvantaged youth.''

We are going to say to 170,000 veterans who are incapacitated, ''We're sorry, we're cutting your benefits.'' We are saying, ''We're not very interested in a real serious review of whether the space station makes good research and scientific sense in this country's future because this is our pioneering spirit and our international agreements and what we've been doing, so let's keep doing what we've been doing.''

It seems to me if there is a status quo around here, it is the folks who every year trod over to the Chamber to vote no on an amendment that asks us to review whether this is something this country ought to continue to do.

Now, I stand here today with the Senator from Arkansas. And let me end where I began. I am not opposed to the space program. I have supported much of the space program. A young astronaut from North Dakota, Rick Hieb, has been on many space missions and was one of the fellows up in the space station *Endeavor* when they grabbed the Intelsat traveling 16,000 miles an hour with a 10,000 pound satellite in outer space. They worked for 4 days to try to fix this Intelsat. Many of us watched them working for 5 or 6 hours in space.

I am enormously proud of what they have done in the space program. This is the question: Is this in the advancement of the space station? I think not, and I support the amendment of the Senator from Arkansas.

Mr. BOND. I yield 5 minutes to the Senator from Texas.

The PRESIDING OFFICER. The Senator from Texas [Mrs. HUTCHISON] is recognized for 5 minutes.

Mrs. HUTCHISON. I want to thank the chairman of the committee and the ranking member for leading in the effort once again for the 20th time to support the space station.

In fact, Congress has reaffirmed year after year that it is committed to the space station and the new endeavors that are being made every day because we are willing to take this chance to go out and look for new industries and look for new technologies.

I have two points, Mr. President. First, we are not doing the space station alone. This is not any longer just a U.S. mission. It is an international mission. We have international partners. Many countries in Europe, Japan, Canada, and Russia are putting money into this program because they know this joint effort is so very important. Are we going to be a bad business partner? That is the question here. Are we going to say, ''Yes, put in $4.5 billion,'' which our international partners have done, ''but we are not really committed. We are going to walk away from this project after we have told you that we are going to do it.''

Mr. President, I do not think the United States is going to be a bad business partner. And, in fact, I think if we did the ethical thing, if we did decide to walk away from it, we would have to reimburse the $4.5 billion to the partners that have put up the money. That would be a terrible waste. It would be the wrong thing to do. That is on the business side. That is on just being a good partner. That is on ethics.

Let us talk about the merits, and that is my second point. Let us talk about the merits. You heard people say that the science is not there; this is going to crowd out other science projects. In fact, this is a science project that has cut its budget, that has streamlined, that has not put its head in the sand to say, ''Oh, we are scientific, we cannot cut our budget.'' In fact, we have cut our budget $40 billion. We are cutting by streamlining the project.

But the point is, there are things being done in the space station that cannot be done in any other way. And that is because the microgravity conditions that we find in space are so important for cancer research, especially women's cancer research, such as breast cancer and osteoporosis, which hits women the hardest. Those can only be done in the microgravity conditions which cannot be duplicated on Earth. So we are looking at scientific advances that cannot be done in any other way but this one. And we are on the brink of making breakthroughs.

We also are on the brink of learning how we are going to be able to live better in space. And, Mr. President, we have to be looking to the future. We have to see what kind of environment there is, what we can get from the environment and the environmental lessons that we learn in space. So the science is good.

Mr. President, we have been able to grow in this country. We have been able to absorb the immigrants that come to our country, the new people that grow up in our country because we have been willing to do the basic research that may or may not produce something. We know it is always chance when you go out and you burst forward to do the new things that have not been done before. We have been willing to do that in America. We have been willing to spend that extra money to try to find out what the new technologies are and to grab those new technologies and turn them into new products, new technologies, and the new jobs that go right down to the grassroots of the success of our country and our economy.

We have been willing to do that. That has been the hallmark of our country. We have the can-do spirit. We are the leaders of the world in research and technology and development. We are acknowledged as that. Are we going to turn around and say, ''No, let's be stagnant. Let's look back 200 years ago and see what was done then. We don't need to do any more. We have actually done everything that we need to do now.'' If we do that, Mr. President, that is the beginning of the end of this dynamic country that is the greatest superpower in the world.

That is not America, Mr. President. That is not the way we have built this country, and it is not the way we are going to keep this country strong, we are going to keep our economy vital, we are going to create the new jobs for the young people coming out of high school and college, the immigrants that come into our country looking for the opportunity that this country has always provided.

We are going to continue to have those opportunities and to make those opportunities by investing in research. Our research budget in this country used to be about 4 percent. Now it is below 2 percent. We must not walk away from that in the name of cutting spending. That is eating our seed corn. Our seed corn is what gives us the opportunity to create those new technologies that will absorb the new people in our system and keep us vibrant and robust.

I thank the Chair.

Ms. MIKULSKI. Will the Senator yield?

Mrs. HUTCHISON. I would be happy to.

Ms. MIKULSKI. Could the Senator elaborate on what the space station means to the women's health agenda? As the Senator knows, we worked on women's health on a bipartisan basis, particularly in the area of breast cancer and ovarian cancer and others. Could the Senator take a second or two to elaborate on that? And I would like to thank her for working on a bipartisan basis.

Mrs. HUTCHISON. I appreciate the question.

The PRESIDING OFFICER. The Chair informs the Senator, all time has expired.

Mrs. HUTCHISON. If I can have a minute to answer, I would be happy to. But I understand if others are seeking to speak, that——

Ms. MIKULSKI. I will elaborate.

Mrs. HUTCHISON. Because we have done it on a bipartisan basis.

Mr. BOND. I will yield 2 additional minutes to be shared by the three of us. In my comments, I want to express my thanks to the Senator from Texas, who led us on a tour of the Johnson Space Center in Houston and has been a strong proponent of space exploration. I thank her for her comments.

I now ask her to respond to the question raised by the ranking member.

Mrs. HUTCHISON. I thank the chairman for letting me have this minute to respond to my colleague, because her point is so very important. And that is, Senator MIKULSKI and I and the other women Senators have looked at the amount of money that has been spent on women's health in this country. It is appallingly small, Mr. President. The women's health issues have not been addressed to anywhere near the degree that would be required according to the number of people in our country who are stricken by these women's diseases.

In fact, we are on the cusp, because of the space station and because of the microgravity conditions, of being able to have breakthroughs both in breast cancer research and osteoporosis. That is why this is so very important for us to continue. I appreciate the emphasis of the Senator from Maryland on women's health care issues, and it is because of her leadership that we all know that women's health care research has not had the funding that we have needed through all these many years, and now is the time that we have the ability to do it. I appreciate her support in a bipartisan way for us to be able to continue the space station, which is going to give us the chance to have those breakthroughs that we hope will be able to cure breast cancer and stop osteoporosis, which is causing so much pain for the elderly people in our country. I thank Senator MIKULSKI.

Ms. MIKULSKI. Mr. President, I will use 1 minute of speaking on this and will speak again on my own time.

I believe the American people want us to work on a bipartisan basis to save lives and to save jobs in the United States of America and to develop those lifesaving techniques that we can export around the world. Working on a bipartisan basis, we have worked on saving lives, and the special emphasis on women's health care that we have done on a bipartisan basis has been extraordinary.

Let me tell you what working together has meant and working with NASA. It means that for the victims of osteoporosis, NASA has developed instruments to measure bone loss and bone density without penetrating the skin that is now being used in hospitals. It also means that in the absence, that research equipment developed by the space station is already paying dividends on the ground by growing ovarian tumor samples in NASA's new cell culturing device, called a bioreactor, so that tumors can be studied outside the body without harm to the patient and developing the technique to intervene.

This is an enormous breakthrough, and while we are concentrating using

space science focusing on ovarian tumors, this will have incredible consequences also for brain tumors and other diseases that are terminal because of a tumor effect.

This is absolutely crucial. Working with the NIH on joint ventures, on hormonal disorders, immune system dysfunctions and also on heart disease, now the No. 1 killer of women in the United States of America, shows this. I know that the Senator from Texas is aware that because of our efforts, NASA and NIH have entered into a joint agreement on how we can do things in space that we could never do here. By doing things in space collaboratively, it will not only be in the laboratory, it will be in the doctor's office and in pharmaceutical devices we can sell around the world. I yield the floor.

The PRESIDING OFFICER (Mrs. HUTCHISON). Who yields time?

Mr. BUMPERS. Madam President, I yield 8 minutes to the Senator from Maine.

The PRESIDING OFFICER. The Senator from Maine is recognized for 8 minutes.

Mr. COHEN. Madam President, I thank my friend.

Madam President, if this were construed to be an antiwomen's health issue vote, an anti-breast-cancer vote, an anti-ovarian-cancer vote, I would not be on the floor supporting the Senator from Arkansas. I have never known him to be antiwomen. I have never known him to cut back on funds for research, be it for osteoporosis or cancer of any form. In fact, he has probably been one of the leaders in favor of more research.

So the notion that somehow this vote, by failing to support the space station, is now going to be an antiwomen's health vote, is that what we have come to?

Madam President, I would like to support the space station, which will cost probably about $100 billion. I would even like to support the B–2 bomber, which the occupant of the chair also supports. That is another $30 billion. And we are probably going to get both. Probably when all is said and done, we are going to have another $130 billion just in these two programs.

By the same token, we stand over here on this side of the aisle and we talk day after day about budgets, about how we have to save money for our children, the crushing debt we are putting on their shoulders. We heard words quoted from Jefferson and the implication from President Kennedy. Maybe we should say we will pay any price, will bear any burden, will borrow any money in order to build a space station, whatever its costs, whatever the merit of the scientific experiments. Last year, we heard the debate on the NAFTA vote. Maybe the giant sucking sound we are going to hear will be all those dollars being drained into a large black hole.

Madam President, 2 years ago, this program was on the verge of being terminated, and at that time, in a desperate effort to save it, the Clinton administration brought Russia into the program and they asserted this was going to reduce the cost by nearly $2 billion, down from $19.4 billion to $17.4 billion, and that promise of $2 billion of savings was critical to saving this particular program.

I was suspicious at those claims. I asked the GAO to make an analysis of those claims, and they found that $2 billion savings to be about as thin as the space through which the space station is going to fly. As a matter of fact, the Russians, by coming into the program, are actually going to cost us almost $2 billion more. Contrary to the claim of saving $2 billion, it is going to be about $2 billion more.

NASA failed to take into account and to identify the additional costs of involving the Russians in our program. It reminds me somewhat of the Steve Martin routine where he says:

''I can tell you how to make a million dollars and pay no taxes. The first thing you do is make a million dollars. The second thing, you pay no taxes. Then when the IRS shows up, slap yourself on the forehead and say, 'I forgot, I forgot.' ''

What NASA has forgotten to do is to identify the additional $1.4 billion in costs of bringing the Russians into the program by forcing us to have to accommodate their technologies with ours and match them up.

But beyond that, we have heard a lot of talk about being a good business partner, about this being an international project. Indeed, it is. Just yesterday, the trade press reported that officials at Russia's Mission Control Center at Kaliningrad said low salaries are making it difficult to prepare, with Johnson Space Center in Houston, to run the international space station.

And Russia is not the only international partner backing away from this program. Canada already reduced its commitment. Yesterday's press account indicated Italy is backing away from its contribution to the space station and wants other European countries to pick up the slack. According to the media reports again yesterday, German and French officials are calling Italy's action the death knell for European participation in the United States-led effort.

If any more of our partners decide to cut back, guess where the cost is going to come from? Good old Uncle Sam is going to have to cough up the money our international partners are starting to back away from.

NASA says this program is going to cost roughly $71 billion. Given the fact that the average cost overrun in NASA programs is about 77 percent, it should come as no surprise that this program will probably come nearer to $100 billion. But even if you assume it is going to come in right on target, $71 billion is something that we cannot afford for the Russian *Alpha* station any more than we could have afforded the $120 billion space station *Freedom* which the administration terminated back in 1993. Neither can our children, from whom this money is going to be coming. NASA cannot afford it. As the GAO and CBO both warned in several dire reports, NASA's budget over the next 5 years falls $10 billion short. They cannot account for how they are going to come up with another $10 billion to fund the programs already scheduled for their funding.

So we have so much money going into the space station now that they are not going to be able to carry on the kind of programs that are going to be necessary for them to carry out their mission.

Another disturbing discovery by GAO is that most of the research proposals submitted to NASA for funding were described as being rather mediocre or even worse. Nearly two-thirds—nearly two-thirds—according to the GAO, said they were not considered scientifically meritorious by scientific peer review panels. We heard a lot about all the experiments that are going to take place only in space, and yet two-thirds of the proposed experiments are not supported by scientific peers.

Madam President, the reason I rise in support of the amendment is that we cannot, on the one hand, continue to talk to our colleagues and our countrymen and women about the need to restrain spending, and then come up with B–2 bombers that we have to fund at $30 billion or come up with a space station that will cost another $100 billion. And there may be no end in sight, indeed, as far as infinity itself may carry us into space, as to how much this program is ultimately going to cost.

On the one hand, we are cutting back from major programs—from Medicare, from homeless, from Head Start and all those that have been articulated—and we are going to commit endless billions of dollars to this program with no end in sight. For that reason, Madam President, I rise in support of the Senator's amendment.

I yield back the remainder of my time.

The PRESIDING OFFICER. The Senator from Missouri.

Mr. BOND. Madam President, I yield 8 minutes to the very distinguished Senator from Ohio who comes to this body with a great knowledge of space and speaks on the basis of his personal knowledge, as well as his legislative experience.

Mr. GLENN. I thank my distinguished colleague for his great, kind remarks.

Madam President, I think this country became what it is, largely because we were a research-oriented Nation.

We expressed our curiosity; curiosity became a way of life. We applied it to everything. We applied it to medicine, teaching, agriculture, government. How can we do things better? What new things can we learn and put to use? One thing we have learned, even though every time we set out for research it is

not a 100 percent home run, the money spent on research seems to almost always have a way of coming back and giving us tremendous benefits not seen at the outset.

Here, for the first time in all the tens upon tens of thousands of years of human history, we have the chance to do research away from the confines of mother Earth. It is stimulating and interesting. I meet almost daily with young people in school groups, who want to talk about this. It has stimulated their curiosity, our work in space. I think it is much more than a childhood interest in wanting to fly. The space program is stimulating their interest in science, math, and exploration. Along with this interest, we are getting the benefits for future generations. Research in microgravity is in keeping with the long American tradition of research in medicine, teaching, agriculture, government, and continuing this curiosity that has been the hallmark of Americans since our founding days.

The space station is the greatest international scientific cooperative effort ever put together. In addition to the very real importance of international cooperation, there are very specific benefits which will accrue to each one of us here. Now these benefits are not in areas like Velcro and Tang and some of the things we were talking about on the floor here last night. All of those things were invented long before the space program. So those were not benefits that came out of this program.

But what we are talking about is very basic, fundamental research—research that may give us benefits in how we cope with osteoporosis, which causes hundreds of thousands of broken bones every year; it is a weakening of the human body. It may give us a new approach on colon cancer, breast cancer and ovarian cancer. This is not theoretical now. We are working with a bioreactor, which was mentioned by Senator MIKULSKI a few moments ago.

We actually have tested a bioreactor in space successfully. Why is that important? Because a bioreactor is capable of more accurately simulating how tissues grow in the body than any other way of tissue culturing. If you experiment in a lab here on Earth using traditional tissue culturing mechanishm, the usual outcome is that the tissue settles to the bottom of the test tube, or Petri dish, or whatever. In space using a bioreactor, tissues grow in three dimensions, much more similar to what you find in the human body. As we have shown on the last Space Shuttle flights that used the bioreactor, cultures can be grown at least twice as large as any in a similar situation here on Earth. This could give us a whole new approach to colon cancer, breast cancer, and ovarian cancer. When you culture things like this in space and they grow to a larger size and you learn how to work with them better there and bring them back to Earth, it could give a whole new approach. AIDS, osteoporosis, breast cancer, and ovarian cancer are the chief focus of attention so far.

I ask, what if we have a new breakthrough in just one of those areas? It may be worth everything spent on the whole space station program by itself if just one of these cultures coming back now—and we had pictures of them on the floor yesterday—gives us a clue as to how to take care of the problems of AIDS–HIV, ovarian cancer and breast cancer. Current digital technology gives us a 5 times more accurate diagnosis of breast cancer over previous technologies. This exists right now because of the space program. So when we say there has not been anything coming out of this program, it is just not true.

Osteoporosis is another one that is particularly amenable to the research in space because that occurs in the astronauts at an accelerated rate over and above anything that occurs here on Earth. One of the major areas of research in biotechnology is to provide research results that can revolutionize drug development. There are current projects for AIDS and emphysema by major pharmaceutical firms.

I add, when the Station opponents say nobody wants these programs and there is no basic support for the research here, that is just not true. Many companies and research laboratories —the National Research Council, Bristol-Myers Pharmaceutical Research Institute, and a policy adopted by the American Medical Association—support the space station. There are also different medical centers, a whole list of them here. I do not have time in my 8 minutes to go into them this morning.

In addition to biotechnology, biomedical, and biological research, muscle and bone growth, NASA is aiding in the development of techniques for counteracting the effects of aging, and on down the line—material science, combustion science. At the last international consortium on combustion, over 10 percent of the papers were given on findings out of the space station. If we make a small step forward in combustion research, who knows what energy savings we can make here on Earth.

Another area is low temperature microgravity physics. These are things that are of benefit right now, and they are not things that are just going to be looked at in the future. These things are in research and giving results right now.

As I said, I think money put into our research program in this country has paid off at the outset more than anything we have seen. Right now, our problem is that many of the companies that did basic research, and were willing to put money into the 5-, 10-, 15-, even the 20-year programs, are cutting back. They are cutting back on the money they are putting into research at the same time we are proposing that we cut back on Government research. This, at a time when we are moving into new international competition, where we need more research, more of the new, more curiosity in how we deal with these matters for the future, so that our children have the good jobs of the future right here. Nothing is as stimulating to our children right now as this interest in the space program and their interest in science and math and exploration. The space station literally has become symbolic of the United States and how we look at our future.

I will point out one other thing. There is about one-fourth of the space station already built. We do not talk about that much. We have put together 50,000 pounds of this 400,000-pound station; 60,000 pounds already has been put together by our allies that are working together on this project. So we have about a little over one-fourth of the project—the space station—that has already been built. So it is not just something that it theoretical out there, that if we chop the budget, we save all the money. We do not. That is not the main reason for going ahead with the program. The reason is the potential for research that we have for the future.

Madam President, how much time remains?

The PRESIDING OFFICER. The time of the Senator is up.

Mr. GLENN. I thank the Chair.

Mr. BOND. Madam President, how much time remains on each side?

The PRESIDING OFFICER. The Senator from Missouri has 14 minutes. The Senator from Arkansas has 7 minutes 52 seconds.

Mr. BOND. I thank the Chair.

I yield 5 minutes to my distinguished colleague from Maryland.

Ms. MIKULSKI. Madam President, I first would like to deal with a couple of rebuttals on issues that came up. The distinguished Senator from Arkansas talked about how Carl Sagan had opposed the space station. I would like to bring to the Senate's attention that Carl Sagan, since his book was published, has now endorsed the international space station. We now have the endorsement of the Planetary Society. He also talks about how the American Physical Society does not endorse the space station. I would like to bring out that the Institute for Electrical and Electronic Engineers does; the American Astronautical Society does; the AMA does; the American Women's Medical Association does.

Now, Madam President, I was once a skeptic of the space station. I, too, wonder if we were building this huge technological endeavor to be a condo in the sky for astronauts to be able to jump to Mars. I no longer share that belief. Why? First, on the drawing books is no plan or no budget for us to take manned space flights to Mars in this century. But there is a space station that is not going to be a condo for astronauts, but it is going to be a space

lab for American scientists and ingenuity. That is why I support it.

Now, like you, Madam President, I am a hands-on, get-out-and-about type Senator. I did not want to make my mind up on the basis of memos and papers about pie-in-the-sky or space-station-in-the-sky activity. I went down to Houston. I went to where they are actually working on what the future of the space station is. I was impressed, and I came back a passionate supporter of the American space station because of its impact on saving lives, saving jobs, and making sure that we have lifesaving devices and pharmaceuticals, and once again America has jobs in the scientific area but in the blue-collar manufacturing area.

I saw what are the projected activities for being able to do life science and microgravity research.

Now critics could say, ''Point to one thing that the space station has done in life science.'' We cannot because the space station is not yet flying. We can point to what NASA has already done in the area of medical research and life science.

The Senator from Ohio, an astronaut Senator, has said it. Who are you going to believe? Some wonky report from a critic? Or are you going to believe one of the most famous Senators in the world?

I put my belief in JOHN GLENN. I put my belief in what I saw at Houston. I put my belief in the fact that what NASA has already done is come up with a pacemaker that can be programmed outside of the body, a cold suit which has been developed to improve the quality of life of MS patients. I could go on about other activities. NASA has a clear, demonstrable record on what it has already done in life science. One can only estimate what it will mean in the future.

We also have an international impact. We are not in this by ourselves. We are in it with the Europeans, the Japanese, and the Canadians. We have a treaty relationship with them to build this space station. To abrogate that responsibility puts at risk the credibility of the United States with its international partners.

I believe that is a mistake. Yes, the Russians are in it. We used to compete with the Russians. Now we cooperate with the Russians to make sure that we make maximum use of our financial resources and maximum use of our scientific capability.

Is this not what we dreamed about when the cold war came down? That we would put our hand out with the Russians, and in the area of civilian research that in no way weakens our national security, we could put our best minds together? Is that not one of the dreams of the cold war, that by working in space out there we can further peace and scientific advancement here?

That is what America is all about. We are known for our social inventions, like our Constitution and our democratic framework, and our technological inventions. People come from around the world to do that.

Now, when we build the space station, we do not do it alone. We have international partners. We have the best minds here collaborating with the best minds over there, to go into space, to come back and save those jobs, save those lives, right here in the United States of America.

I am for the space station.

Mr. BUMPERS. Madam President, first of all, I ask unanimous consent that Senator DORGAN and Senator BAUCUS be added as cosponsors.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BUMPERS. Madam President, I yield myself 3 minutes.

I tell you who I put my confidence in: Every physicist in America who said you cannot do one thing in space that you cannot do on Earth for a lot less money.

I put my faith in the guy who runs the Johnson Space Center. There will be life sciences here, but we have not finalized that. Really, it is hard to answer that question. This is the man who runs the program.

I intentionally did not bore the Senate today with the myriad of hundreds of quotes from every physicist, virtually every medical researcher in America, all of whom say that this is a terrible, terrible way to spend the taxpayers' money when it comes to research.

The Senator from Ohio, JOHN GLENN, and I came to the Senate at the same time. We have been close, steadfast friends ever since. There is not anybody in the body for whom I have greater respect.

It pains me when we disagree, which we do strongly on this issue. I know Senator GLENN's great talents. He is a genuine, certified America hero. But even Senator GLENN will only tell you what we hope to do.

I tell you, we have been hoping for 30 years. That is how long we have been in space—30 years—and I am still waiting for somebody in the Senate not to just talk about AIDS and cancer and multiple sclerosis, but to tell me what the space station has done. I can tell you—zip, zero, for AIDS and cancer.

When it comes to women's health issue, I thank the Senator from Maine very much for pointing out that nobody has been stronger for medical research in this country than I. I sit on the committee that appropriates money for the National Institutes of Health so I know how they are starved to death. They are located in Maryland. They cannot even begin to get the money they need to do the research that needs to be done.

When have you seen a story out of NIH on what we are doing on hepatitis? What we are doing on Lyme disease? Cancer? Chemotherapy? Almost daily there are reports from the National Institutes of Health on gigantic medical advancements.

I invite Members to tell me in 30 years when have you seen one single announcement come about as to what we have done for the welfare of our people from the space station.

I believe strongly in the space program. I will tell you that I believe strongly they are cutting back on space programs that I applaud and you applaud in order to make room for this thing which Newsweek called a boondoggle.

What is it for? Why, I have heard talk about children getting excited. It is a new frontier. It is all those things. I get excited about *Apollo 13*. I get excited when I see astronauts retrieving a satellite. But that does not mean I have to take leave of my senses and vote for $100 billion project—$100 billion.

Do you know what children in this country are entitled to? They are entitled to grow up secure from crime on the streets. They are entitled to grow up not hungry. They are entitled to grow up with an education so they can do honest-to-God research when they are adults. They are entitled to grow up in a decent home that does not leak, that is warm in the wintertime.

What is the U.S. Congress doing? We are assaulting the children of this Nation, cutting food stamps, cutting housing, cutting education. Educational loans will be cut $8 billion more over the next 7 years than this thing will cost.

I look at it and I cannot believe it. I wonder, what kind of values does this place have? I believe in research. I believe in women's health issues. I defy anybody to show me where I ever voted against it. I do everything I possibly can from my position on the Health and Human Resources Subcommittee on Appropriations.

Betty Bumpers has spent her entire public life taking advantage of the fact that her husband was Governor and Senator to bring immunization programs to every State in the Nation. The pharmaceutical companies of this country have been champs in the area. They have developed new vaccines—not on the space station; they did it in their laboratories.

I agree with Carl Sagan. I agree with every physicist in the country who says there is only one rationale for the space station—that is to go to Mars. If you want to go to Mars, fine. We went to the Moon.

I went down to the Johnson Space Center to see what we got. We got some drillings. It was exciting. I got as teary eyed as any Member of the Senate when Neil Armstrong stepped off, but I did not say I wanted to waste $100 billion because I am excited today, not at the expense of the tremendous needs of this Nation.

I yield the floor.

Mr. BOND. Madam President, I yield myself 6 minutes.

Madam President, we have had some very spirited debate. Let me address some of the points that have been raised by my good friend, the Senator from Arkansas.

He has made very compelling arguments about how we have not learned anything from the space station. Small wonder, when we have not built the space station. It is not up there yet. It has not done anything yet. We have had successes exploring in space but we have not built a space station.

The people would have been up there who are doing research said we need to have that permanent presence in space so we can find out over time how these experiments work. That is the whole purpose. If we applied that test to all basic research, that you cannot support basic research until you show what it has done, we would be shutting down federally funded facilities at universities and every other scientific organization because you do not know what you will get from basic research until you get there.

Certainly, I will go with the scientists who are planning on the experiments that will take the time that a space station can afford them to determine what the impact of microgravity and the other exigencies of space produce in scientific research.

Now, the question is raised about the National Institutes of Health. NASA and NIH have executed 18 cooperative agreements since 1992, and joint activities have included scientific workshops, ground-based and flight investigations, other specialized activities such as the space line reference system developed by the National Library of Medicine. NASA expects an expanding level of cooperation with NIH as research enters the space station era.

NIH researchers are expected to use the space station's next generation life-support sciences facilities, including the human research facility, the gravitational biology facility, and the centrifuge facility in pursuit of national biomedical research goals.

We have heard the figure bandied about that the space station costs $94 billion. More than half of that, to be quite frank with my colleagues, to set the record straight, comes from the shuttle. That is how we get up there. That is costing $50 billion. I hope the objective of this amendment is not to kill the space shuttle and kill all space research. I think that would be a double tragedy. Recall that the total $94 billion not only funds the shuttle, it funds the building and the operation of the space station. We do not justify other programs this way by saying the total cost of 20 years of operations is such. We talk about the yearly cost. We could have tremendous figures if you took any program and built the continuing costs over years. We judge them on an operational year-by-year cost.

This idea that we are going to make great savings overlooks the tremendous potential for great contributions to our scientific and engineering knowledge from the space station.

Yesterday, my good friend from Arkansas quoted extensively from Carl Sagan and quoted all the arguments that Carl Sagan had made to support the position of the Senator from Arkansas that we ought to cancel the space station. The Senator from Maryland said it very well. But let me just quote from a letter dated July 24, 1995, from the same Carl Sagan. He said:

> For Congress to cancel the space station now would cause huge disruptions in many local and regional economies, and, worse yet, it would scar our national psyche. It would end the rationale for America's manned space program, and with it would die some of the spirit of a great nation bold enough to seek great achievements.

Madam President, it would be a tragedy, an utter tragedy, to kill the space station. It is the most ambitious and exciting program since the Apollo program of over 25 years ago.

I, with my son, enjoyed the smashing success this year of the movie, ''Apollo 13,'' that drew in millions of people—those who recall those glory days, a time when America set ambitious goals and moved to accomplish it; and those who are too young to have lived through those heydays yet are naturally drawn by its spirit of exploration, bravery, and discovery. That is the spirit that made America great.

The international space station will mark America's next great step in this endeavor. The station will become a visible symbol of our commitment to the future as our children will watch it move elegantly across the nightly sky.

Although the space station has many of the same characteristics as the Apollo program, it is also different in important ways. The Apollo program was motivated by the cold-war need to beat the Russians to the moon. Space station, in contrast, will involve the cooperation of 13 nations, making it the largest cooperative science program in history. The international partners have spend billions on the program to date. Instead of beating the Russians, we will be working closely with them to build a better, more robust orbital laboratory.

It is time to stop with these incessant attempts to kill the space station. Over the last 4 years, there have been 13 attempts in the House and Senate to kill the program and all have fortunately failed. Last year, a resounding 64 senators voted against this amendment and I among them. The arguments used by station opponents this year are the same old, tired arguments that have been used in years past—the claims were not true then, and they are not true now. Here are some of the facts:

First, the space station is no longer a dream but a reality. Thanks to prior year congressional commitments, the program has finally entered a period of stability. After a tumultuous decade, NASA has a design and schedule that work. There is not talk of redesigns or restructuring today, only building hardware. About 50,000 pounds of hardware have been built already. Some 75,000 pounds of hardware will be built by the end of 1995. The final contract has been signed between American and Russian companies for the first piece of the space station—the FGB module—scheduled for launch in November 1997. Construction is underway in Moscow.

Second, the space station is perfectly on schedule and on budget. NASA has kept its promise to maintain the first element launch in November 1997, and at a total cost of $17.4 billion through the end of construction in 2002. The space station has successfully gone through its first incremental design review. NASA has identified no technical show-stoppers to building this space station.

Third, a streamlined management team is in place. NASA has reduced its in-house work force on the program by 1,000 people—from 2,300 to 1,300—and is managing the program better than ever. NASA and the space station's prime contractor, Boeing, signed a $5.63 billion contract earlier this year to build the space station. This contract reflects NASA's new procurement philosophy of motivating contractors to avoid cost growth, and includes incentives for getting the job done for less than the target cost, and penalties if there are overruns. This is exactly the kind of procurement reform that's needed.

Fourth, cooperation with Russia is working as planned. NASA has made two space shuttle flights to Russia's *Mir* space station already this year. The first shuttle rendezvoused with *Mir*, and the second docked with it—the first United States-Russian docking in 20 years. These flights proved not only the technical feasibility of our two countries working together in space, but the political feasibility as well. With each of these flights—and another is scheduled in 6 weeks—we learn more about working together and overcoming technical and cultural barriers. The inclusion of Russia will enable space station to be completed 15 months earlier than the previous design and have more crew and more research volume—all at a savings of approximately $2 billion to United States taxpayers.

Fifth, this program is not a budget buster. It fits within the budget resolution. The House version of the budget resolution specifically included space station funding all the way to the end of construction in 2002, and the conference agreement with this body provides $2 billion more in function 250 than the House did. We can balance the budget and invest in the future.

Sixth, space station will not undermine the balance among NASA programs in human spaceflight, science, technology, and aeronautics. This very bill shows how NASA can afford space station, Mission to Planet Earth, new aircraft technology, a new reusable launch vehicle, and a host of other programs, while maintaining that balance—which is so crucial to NASA's future. With the zero-base review

changes that NASA is now implementing, NASA can afford this program, and so can the Nation.

This country must continue to invest in the future. A research laboratory in space can provide unimaginable benefits to the American people. The space station is the only facility where research can be conducted for long durations in microgravity. This unique environment has only begun to be explored scientifically. American taxpayers are certain to benefit, just as they have from other basic research, and probably in ways we least expect.

This amendment to terminate the space station threatens the very existence of the U.S. human space flight program and would abdicate U.S. world leadership in the largest international science project in history. With only 2 years left before the first launch, I hope this will be the last of a long line of attempts to end this program and its defeat will send a strong message of commitment to finish the job we've started. I strongly oppose this amendment.

Mr. BUMPERS. Madam President, how much time do I have remaining?

The PRESIDING OFFICER. Two minutes.

Mr. BUMPERS. Madam President, I ask for an additional 2 minutes for a total of 4 minutes.

The PRESIDING OFFICER. Is there objection?

Mr. BOND. Madam President, what is the time remaining on our side?

The PRESIDING OFFICER. Two minutes fifty-three seconds.

Mr. BOND. I ask for an additional 2 minutes on our side.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

The Senator from Arkansas will have 4 minutes, and 2 minutes will be added to the Senator from Missouri.

Mr. BUMPERS. Madam President, the Senator from Missouri, who is my good friend, says the Senator from Arkansas is making the same old tired arguments that he has made every year. He is absolutely right. A good argument against the space station is like a value. It does not lose its power just because time elapses. The same arguments that I made against the space station 6 years ago are just as compelling today as they were 6 years ago.

We talk about the Russians participating and how wonderful international cooperation is. You think about that. The reason the Russians are cooperating is because we are going to give them the money to cooperate. So much for their cooperation. The Italians and the Canadians are cutting their contributions, and Germany and France are discussing reformulating their contribution to the space station. Why not? They know the United States will pay the difference.

Madam President, here is a quote that says it all. James Van Allen, astrophysicist, discoverer of the Van Allen radiation belt, a premier physicist, said:

> With the benefit of over three decades of experience in space flight, it is now clear that the conduct of scientific and application missions in space by human crews is of very limited value.

That is echoed by every premier scientist and physicist in America.

Dr. Van Allen goes on to say:

> For almost all scientific and utilitarian purposes a human crew in space is neither necessary nor significantly useful.

Dr. Bloembergen says that human crews are inconsistent with most microgravity research. But I want my colleagues to answer this one question. What is it about space and no gravity that makes it so fascinating for medical research, or the development of new crystals for our computer industry? I do not know the answer. But I rely on those who do. They say there is none. Dr. Van Allen, and Dr. Park, who is a leader of the 40,000 physicists in the American Physical Society say none. Do you know what else they say? Much of the research for microgravity, if it has any beneficial value, can be done on Earth which brings me to my final point, and then I will yield the floor and I will not say another word about this.

You ask yourself. What do you think is more important? The planet Earth or going to the planet Mars? That is all this is about. Carl Sagan and all of them say that, if you want to go to Mars, then build a space station. If you do not, do not. You ask yourself about the needs of the children of America, about their food and their education and their clothing and their housing. They are crying on the streets. Ask yourself about the health care of our elderly. The needs are growing, but the funding is being cut. That is all happening on the planet Earth. The problems are not cosmic. The problems are here on Earth. You want to go to Mars? Be my guest. But for God sakes, do not do it when we have these unbelievable problems that are growing daily, that $94 billion would go an awful long way to cure.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. BUMPERS. I thank the Chair, and I yield the floor.

Mr. BOND. Madam President, I yield myself 2 minutes.

Madam President, my good friend from Arkansas asked to know who, with any knowledge of research or interest in scientific exploration, would support this. I ask unanimous consent to include statements from the Planetary Society, Bristol Myers-Squibb Pharmaceutical Research Institute, the American Medical Association, Mount Sinai Medical Association, Schering-Plough Research Institute, American Medical Women's Association, Baylor College of Medicine, Hauptman-Woodward Medical Research Institute, and the Multiple Sclerosis Association of America in the RECORD to answer the concerns of my colleague from Arkansas.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

WHAT THE NATION'S LEADING RESEARCHERS AND SCIENTISTS ARE SAYING ABOUT THE INTERNATIONAL SPACE STATION

Several years ago, Carl Sagan, Bruce Murray and I (the officers of The Planetary Society) opposed the then-space station plan as serving no national purpose. The present plan is serving national and international interests. For Congress to cancel the space station now would end the rationale for America's manned space program, and with it would die the spirit of a great nation bold enough to seek great achievements.—Carl Sagan and Louis Friedman, The Planetary Society.

The program of protein crystal growth experiments sponsored by NASA has been one of the real success stories in microgravity sciences and applications. Protein crystal growth research has made much progress, but must now move to the next phase, which requires prolonged access to a microgravity environment with potential for human intervention on a continuing basis. This new phase will require an orbiting platform such as that provided by the International Space Station.—Howard M. Einspahr, Bristol-Myers-Squibb Pharmaceutical Research Institute.

The AMA supports the continuation of the NASA and other programs for conducting medical research and other research with potential health care benefits on manned space flights, including the continued development and subsequent operation of the international space station.—Policy Adopted by the American Medical Association.

Through the NASA-NIH linkage, the Space Station has become a vitally important and unique laboratory for biomedical research. In addition to its central role in aerospace engineering and space exploration, the Space Station is an investment in the future of biomedical research.—John W. Rowe, M.D., Mount Sinai Medical Center.

A commitment to conduct continuous research for longer periods of time in space is also essential. Ultimately, our hope is to be able to crystallize proteins in microgravity, conduct all x-ray data collection experiments in Space and transmit the data to earth for processing. This can only be done in a Space Station.—T. L. Nagabhushan, Ph.D., Schering-Plough Research Institute.

AMWA supports the continuation of funding for NASA's International Space Station because it provides one of the most promising new vistas for medical research on diseases that strike women and have unknown causes or cures.—Dianna L. Dell, M.D., American Medical Women's Association.

Space laboratories allow scientific experiments that simply cannot be duplicated on Earth. The space station offers the potential of long term studies that are especially exciting to the biomedical researchers seeking to understand how cells grow, divide, and mutate to cause diseases such as cancer and immune deficiencies.—William T. Butler, M.D., Baylor College of Medicine.

My institute has worked closely with the Center for Macromolecular Crystallography at the University of Alabama at Birmingham to perform two space shuttle crystal growth experiments on the protein recombinant human insulin. It is clear that with the additional capabilities that the Space Station will offer, this type of research will progress at a much more rapid rate. It is also evident to me that the Space Station will offer similar advantages for the many other areas of science that have been proposed for this unique facility.—Herbert A. Hauptman, Ph.D., Nobel Laureate, Pres., Hauptman-Woodward Medical Research Institute.

NASA's ''cool suit'' literally has changed the lives of some of those suffering from MS. The MSAA is hopeful, as new findings continue to emerge from space-based research and the possibilities that the International Space Station holds. This research could be essential to MS patients.—John G. Hodson, Sr., Multiple Sclerosis Association of America.

Mr. BOND. I also note that our very distinguished physician Member is present. I yield to the Senator from Tennessee.

Mr. FRIST. Mr. President, I rise in support of the space station, and I hope to add to this debate with insights from what is a unique perspective in this body, that of physician and researcher. Until I was elected to represent the State of Tennessee in the Senate, I spent my adult life dealing with the daily reality of illness and the limitations of our ability, as humans, to diagnose and treat those illnesses and to save lives. The limitations I faced as a physician and surgeon were numerous: Limitations on the ability of the body to heal itself; limitations on the treatments and medicines to augment the body's immune system and healing process; limitations on the scope and effectiveness of biomedical technology in detecting, diagnosing, and treating an illness; and, finally, limitations in funding. It is this final limitation which now drives this current debate on the value of the space station.

My colleague from Arkansas has claimed many things in his introduction of his amendment, not the least of which is a consensus in the scientific community that the possible rewards of space-based research are minuscule and do not justify the costs incurred. The Senator says that, ''every physicist and physician in the country says it is nonsense'' to expect advances in medicine from space-based or microgravity research. I disagree. As one physician who believes we can reap great rewards from spaced-based research, I suggest that such a statement is untrue. As a member of the medical community, who is familiar with the opinions on research within that community, I can tell you that there are plenty of researchers and physicians who do not believe in the merits of microgravity research, and the Senator from Arkansas has quoted several of them. As a member of the medical community and of the Senate, I can tell you that it is, by no means, every one. I dare say that for as many reputable scientists in America that do not believe in the value of space-based medical research, we could easily find two who hold the opposite opinion, and many of them have contacted me.

I stated moments ago that this debate is about money. The Senator from Arkansas says the debate is about priorities. I believe that on this point, we are in agreement, and we are both correct. However, the conclusions we would draw are markedly different.

Funding for the space station is has been characterized as being based on skewed priorities: that this money is better spent on housing, law enforcement, and any other number of pressing domestic needs. The implication is that we are facing a zero-sum game where the space station is funded at the expense of the poor, of the elderly, or of the sick. That, too, is untrue. We in Congress are funding billions and billions of dollars worth of programs for the poor, sick, and elderly just this year—maybe even more than our constituents want us to spend—and we see only rare successes from these grandiose social programs.

I believe that, in fact, funding for the continuation of the space station is exactly where our priorities should be: trying to achieve a better quality of life for Americans and, potentially, for all humans.

I would also take a moment to address the question of what has been achieved on space platforms so far, and what the goal of establishing the space station would be. I am speaking almost solely in terms of medical research. The Soviets, and the Russians in turn, have taught us quite a bit so far in terms of achieving the engineering feat the space station will be. They have also collected massive amounts of information on the effects on the human body of the effects of extended weightlessness. Finally, they have saved us millions of dollars and years of research if, in fact, we would want to launch a mission to Mars from a semipermanent platform in space.

But what is more important to this debate is the fact that the Russians have, admittedly, taught us very little about medical research in space. Why? Not because they were not seeing the results they wanted to from their research in space, but because the medical research the Russians were conducting in space lacked the quality and priority our own space-based medical research would enjoy. The Russians simply do not have the medical infrastructure to support the type of research I am talking about, and they have not made such research a priority on the Mir space station. It is no wonder that some of the most enthusiastic supporters of the cooperative space station program are Russians—not because they see a cash cow in our ventures—rather, because they believe that, finally, the infrastructure and commitment to conduct medical research in space will finally be available.

Mr. President, the benefits and advancements in medical science and technology we can realize from long-term space-based research can be divided into three simple categories: First, that which we know is immediately or soon achievable; second, those which we can speculate about or make an educated guess as to the new possibilities of space-based research; and third, those achievements and advancements which we cannot even begin to assess.

I will first address the immediate and near term benefits the space station can provide in the field of biomedical and life science research.

Support for the space station and space-based research continues to grow throughout the medical and research community: the American Medical Association, Schering-Plough Research Institute, the Multiple Sclerosis Association of America, the American Medical Women's Association, Bristol-Myers Squibb, and Mount Sinai Medical Center, to name a few.

Space-based research provides unique insights to advance our understanding of the heart and lungs, cardiopulmonary research; the growth and maintenance of muscle and bone, musclo-skeletal research; the body's ability to sense position and maintain balance, neurovestibular research; and the regulation of the metabolism, regulatory physiology.

Space-based researchers can conduct basic and applied research to improve the efficiency and reliability of life support systems, such as artificial heart valves and pacemakers, or artificial kidneys.

Space-based research can provide knowledge of protein crystal growth physics and kinetics which may lead to improvements in Earth-based crystal growth technology and more effective pharmaceutical development.

Another benefit can be realized when using conventional bioreactors to culture human cells for cancer research and drug testing because cultured cells do not grow in ways representative of how cells develop in the human body. In the NASA bioreactor, cells taken from a cancer tumor grow and resemble the original tumor, making a much more accurate culture available for researchers.

Additionally, techniques developed for use aboard the space station could advance the state-of-the-art growth of tissue samples in the laboratory, thus leading to inestimable benefits for medical research.

Mr. President, this is only an abbreviated list of the immediate and near term benefits medicine will experience from space-based research.

Those benefits to medical research about which we can now only speculate are possibly the most exciting and promising of the space station's contributions. The benefits of advanced crystal growth studies; the ability to observe cell mutation and behavior over the long term, without the effects of gravity; and the possibility of advanced artificial human tissue growth are extraordinary. The implications of the possibilities are nearly limitless: anything from cures for cancers and other deadly or debilitating disease, to the development of medicines that have crystallin structures which could not be achieved in gravity, to the growth of tissues to replace losses which would normally kill someone.

If need be, Mr. President, we can place an actual rough dollar value on

such advancements by simply adding up the cost to our economy each year incurred by illnesses and loss of life. Personally, I think that is rather macabre and beside the point. I believe that the value we can place on the known benefits of space-based medical research clearly outweigh the costs we now will assume to make the space station a reality. If you were to apply a cost-benefit analysis to the space station—as we have rightly applied to many federally-funded programs—I believe it would yield a cost to benefit ratio which could end this debate for good.

Finally, Mr. President, there are advancements in space-based medical research which defy both quantification and even qualification in this debate. These are the advancements in medical science which we cannot even foresee—those which will become hints or reality only when we are allowed to explore them fully.

Some will say these yet-to-be-seen advancements are nothing more than fairy tales, or promises wildly beyond what we can possibly deliver, or even myths produced in an attempt to justify costs which those of us who back the space station cannot currently justify.

However, I will remind my colleagues that throughout history it has been the unforeseen, unplanned benefits of technological advancement that have most often proven to be our greatest rewards. I believe that even the possibilities of such watersheds in advancement of medical science and unforeseen benefits are compelling enough to pursue the program further. Just as the medieval scholars could not speculate on the profound changes and advancements of the upcoming Renaissance, we cannot even guess what we might soon discover.

Mr. President, I believe we truly are approaching a renaissance in medicine and technology with the advent of space-based research, and it is exciting as a physician, as well as simply on a human level, to know that much of these advancements could come within my lifetime or those of my children.

The bottom line, Mr. President, is that not only can we make a direct link between space-based research and improvements in the human condition and quality of life, but also, I feel, we can be confident that some of the greatest benefits and advancements have yet to be seen.

I believe that advancing the space station program is not pie in the sky, so to speak, but money very well spent. It represents the opportunity for great advancements in our quality of life and an unparalleled opportunity for international cooperation. I believe that we have made many difficult but correct decisions concerning the funding of the space program and space-based research specifically, and I urge my colleagues to continue that series of good decisions by defeating the Bumpers amendment.

Mr. WARNER. Mr. President, I rise today to join my colleague, Senator BUMPERS, in support of the amendment we have placed before the Senate and is the pending amendment.

Senator BUMPERS and I have collaborated in the past to eliminate Federal projects that the Federal taxpayers simply cannot afford in these tight budgetary constraints. We were successful in halting Federal funding for the super collider, a project whose astronomical expense made it a simply unfeasible program in this era of tight budgets.

Mr. President, at a time when Congress is struggling to balance the Federal budget, we think it is irresponsible to exempt from any cuts NASA's $90 billion-plus program to complete the building of a space station.

There are genuine questions about whether this space station can be built on the schedule and for the cost that NASA currently claims. Schedule and costs are inextricably connected. If the schedule is not met, then the costs will increase.

There is a major and fundamental question here. Can the timetable to build the station, with all of the spacewalks that will be needed to assemble the structure, be achieved on schedule?

Mr. President, NASA is expecting 73 launches to take place on time and in sequence over 55 months. Flexibility will not be possible because each flight will bring a specific piece of hardware that must be attached in a specific order. The assembly sequence cannot endure manufacturing delays, launch delays or launch failures.

I remind my colleagues, that delays mean more costs.

Mr. President, the number of spacewalks needed to assemble the space station has risen significantly in the past year. Reliance on these walks increases the risk that the timetable to build the structure will not be achieved. Thus, building the space station will be a very risky endeavor given the demanding schedule to complete the station and have it permanently occupied by 1998.

Mr. President, Russia and Canada are to have major roles in the timely development of the space station. Yet, the involvement of these two nations adds critical elements of risk.

NASA assumes that, with one exception Russia will provide its hardware and services as a partner, on a no-exchange-of-funds basis. At this time, it may be premature to assume that Russia will not charge for anything given the economic problems confronting the country.

Canada has cut back its contribution to the space station program and will not decide until 1997 whether to build the final portion of the robotic servicing system that will be used in assembling and maintaining the station. Canada is building the arm, but has not decided on whether to build the special purpose dextrous manipulator that fits at the end of the arm—the fingers. If Canada does not build the fingers, then NASA will have to find the funds to build this expensive piece of equipment.

Mr. President, the price tag today for this project is $93.9 billion. I have no doubt that this figure will be increasing dramatically once more hardware is built, space shuttle launches are delayed, spacewalks are increased, and the Russians and Canadians fail to live up to their commitments.

Total spending on the space station from 1985 to 1993 added up to about $11.2 billion, and all we have to show for this are diagrams and designs.

Mr. President, it is time for Congress to cancel funding of the space station. Let us not embark on an elaborate and expensive journey into space until we meet the challenges confronting American taxpayers on Earth.

Mr. DOLE. Mr. President, I rise in opposition to the Bumpers amendment to terminate funding for the space station. It seems to me that we have answered the question of whether or not to proceed with this historic endeavor. Year after year the Congress has endorsed the outreach to space. And we have done so for the right reasons—the space station represents the next logical step of man's exploration of the universe and it represents the next logical step for understanding our own world.

I will not try and reiterate the many sound reasons for continuing this important program. They have been presented in great and compelling detail. But I would offer another reason which was recently brought to my attention by Ambassador Pickering, our envoy to Russia. Clearly the Russians are in dire need of hard currency. Should the United States default on our commitment of cooperation with Russia on this project, Russia will necessarily look elsewhere—to Iran or Iraq—nations who have demonstrated a clear desire to possess and proliferate technology and weapons of mass destruction. Cooperation with the United States on space station is vital to Russian needs for hard currency. And the United States will get fare more in exchange—both in technology and in stability.

Again, I urge my colleagues to reject the Bumpers amendment, preserve our outreach to the stars, and keep a mindful eye on commitments made for the purpose of keeping peace and stability in these difficult times.

Mr. SHELBY. Mr. President, I rise to oppose the amendment offered by the senior Senator from Arkansas.

Mr. President, once again we find ourselves debating the merits of the space station. The distinguished Senator from Arkansas again tells us that America should abandon its commitment as the leader of this historic endeavor.

Supporters of this amendment say we simply cannot afford to continue funding the space station. Mr. President, I ask you, Can we afford not to?

History tells us that mankind is destined to explore beyond the bounds of this tiny planet. The question is not whether we should take the next logical step. The question is: ''Will we lead or will we follow?'' I believe the United States is destined to lead.

Leadership, Mr. President, requires commitment. America's relatively small investment in the space station demonstrates our commitment to the future of technology in space. It also demonstrates our commitment to our international partners who have joined with us to make this dream a reality.

Abandoning the space station at this late date not only squanders our initial investment, but it tells our partners that they can no longer depend on us to meet our commitment to international space exploration. Our credibility among the space faring nations depends on our actions today.

Mr. President, a leader must also have vision and vision is meaningless without the courage to fulfill its promise. When we began funding this project, we set out on a journey that held out great promise and it continues to do so. Again, we hear from those who do not share our vision and are content to quit.

Opponents suggest that the space station costs more than it is worth and that we should therefore stop funding it now and redistribute that money to more pressing social programs. Not only do they fail to recognize the enormous potential of space research and exploration, but they are content to sacrifice the promise of a better tomorrow for the failed programs of today.

Mr. President, one of the most important Federal priorities of any government is to create opportunities for a better life in the future. We can not effectively do that anymore by just pumping money into life on Earth today. We must look ahead. We must search for ways to sustain our society, our culture, our life into tomorrow. The space station holds that promise.

Mr. President, the space station has a legitimate mission, an impressive design and a plan to achieve its goals. Granted, it has had its difficulties, but all great endeavors will meet with obstacles. Although the space station faces more challenges, NASA is prepared now, more than ever, to meet those challenges. This unprecedented example of international cooperation is now on schedule, on budget and is worthy of our support.

So, I ask my colleagues that share the vision of space exploration to join me in reaffirming our country's commitment to our future by opposing this shortsighted attempt to strip funding from the space station.

Mr. President, I yield the floor.

Mrs. FEINSTEIN. Mr. President, I rise today in support of the international space station and in opposition to the amendment offered by my colleague, Senator BUMPERS. The space station is not only a valuable scientific program, but it is a symbol of our Nation's commitment to investing in the future.

More than a quarter of a century ago, the most awe-inspiring words were uttered by Neil Armstrong, ''That's one small step for man, one giant leap for mankind.'' Those words, delivered from the Moon's surface when the *Apollo 11* lunar module landed in 1969, resounded around the globe. Each and every American whose ears were graced with that message, was filled with pride and honor.

That day in our past served as an inspiration. It showcased the technological leadership of the United States, the great will of the American people, and the courage of our space pioneers which combined to produce a defining moment in history. That mission set the stage for several other Apollo missions which sent astronauts to the Moon. It served as a precursor to Skylab, the first U.S. space station, launched in the early 1970's. And, it led the way for the space shuttle program.

With each mission, we learn more and more about life sciences, materials sciences, Earth sciences, engineering research and technology, and commercial development. Also with each new mission we explore the unknown and make discoveries that ultimately help improve life here on Earth.

The international space station will have a laboratory to conduct experiments and do research on a wide variety of subjects. Astronauts will be able to conduct long-duration microgravity investigations, which will allow scientists to look deeper into the mechanics of cell functions, combustion, liquid behavior, crystallization, and electromagnetics. In addition, research that would take place on the space station could lead to cures for life-threatening diseases, lower pharmaceutical costs, and better prepare astronauts for the rigors of space travel.

Opponents of the space station argue that these justifications for the space station cannot hold up to scrutiny. They suggest that economic and scientific spinoffs are not applicable for life here on Earth. In fact, the opposite is true. Scientific research and experiments conducted on the international space station do have real life applications here on Earth. Space-based research has led to a variety of innovations and technological advances that have, and continue to benefit people every day. Included among them are: Long-distance telephone networks; international TV broadcasts; car chassis and brake designs; heart monitors for ambulances; structural designs for bridges; laser surgery in hospitals; programmable pacemakers; navigational systems for airplanes; and long-range weather forecasting—just to name a few.

Research conducted on the space station will have other important applications in the lives of average Americans. In the biotechnology field, scientists on the international space station will conduct research on tissue culture studies to gain knowledge of normal and cancerous tissue development and to discover treatments and cures to diseases. They will also study protein crystal growth to design pharmaceuticals which block proteins which could lead to the development of an AIDS vaccine or cure. Additionally, research on droplet/pool burning will help improve understanding of fire propagation for improved fire safety.

The field of fluid physics will also benefit. Scientists will conduct research on interface dynamics to improve industrial films and coatings, oil spill recovery techniques, tracking of ground water contaminants, and processing of semiconductor crystals. At the same time, their research will cover cloud formation microphysics, which is useful to meteorologists for improved weather predictions.

Scientists will study electronic materials to investigate the vapor phase of crystal growth. This will help produce much higher efficiency and density optoelectronics for the communications industry. Also, epitaxy liquid phase molecular and beam vapor phase will be studied to evaluate high speed switching devices and high density memory. This will help to produce smaller, more affordable super computers.

Scientists will also study environmental health to develop improved air and water quality sensors, analyzers, and filtering devices. In addition, they will examine automated microbiology systems which enhance identification of bacteria population. They will conduct engineering research and technology development to support enhanced designs for firefighting suits, toxic waste cleanup suits, and deep sea divers equipment.

It is clear that scientific research and experiments like those listed above have real life applications here on Earth. At the same time, investments in space create valuable economic returns as well. Each dollar invested in space programs yields up to $9 in new products, technologies, and processes here at home.

The international space station program also generates more than 14,000 direct jobs—5,400 of them in my home State of California. Indirectly, 40,000 jobs nationwide have been created because of space station-related activities. At a time when the country—and California in particular—has been impacted by defense downsizing and base closures, the space station is an important source of economic activity. It is defense conversion at its best and creates new jobs for former defense and aerospace workers.

Aside from the enormous benefits to science, medical research, and technology, the space station helps to maintain U.S. leadership in space and enhances global competitiveness. It also serves as a source of inspiration and encouragement for our children, fostering the next generation of scientists, engineers, and entrepreneurs.

As a powerful symbol of U.S. leadership in a changing world, the space station represents an international commitment. Our original international partners—Japan, Canada, and Europe—have already committed $9 billion to the space station program, and are counting on America's continued leadership in space.

Moreover, with the Russians added to the international partnership, the space station has proven to be a test bed for scientific research and technological development, while uniting former adversaries in peaceful cooperation. Just 6 years ago, this would have been unthinkable.

By asking Russia to join the international space station, the United States can channel the Russian aerospace industry into nonmilitary pursuits. This gives us more leverage to reduce the risk of nuclear proliferation and enhances the United States goals of private sector development and demilitarization in Russia. In addition, an international space station will use existing Russian space technology, capability, expertise, and hardware to build a better space station for less money.

In closing, I would like for you to imagine, if you would, had the early pioneers not forged west to explore the frontier. If, for instance, in 1803 the Louisiana Purchase had not been completed for $15 million—which at that time was a large sum of money. The frontier purchased in that deal now includes 15 States and generates $200 billion in Federal taxes annually. The returns on that investment have more than paid for the original purchase.

Let us, for a moment, consider Alaska, which, in 1867, was purchased for $7.2 million. At the time it was purchased, Secretary of State Seward was derided and mocked for negotiating the terms with Russia. Now, we know that Alaska's oil reserves exceed $125 billion, and no one has stepped forward to suggest we reverse that transaction.

The United States must continue its exploration in space with the next logical step—a permanently staffed space station. The international space station will lead the world toward great advances in space exploration. At present, all of the returns on our investment in space have yet to reach fruition. We have yet to realize all the treasures that are held within the vast resources of space. We have learned, however, of its benefits to science and medical research. We know that it bolsters global competitiveness and U.S. leadership in space. We are also aware of its economic spinoffs, job creating capacity and source of inspiration to future generations. I am confident that this research will continue to exceed our imaginative grasp and reap real benefits that are applicable here on Earth.

For these reasons, I strongly support the international space station and urge my colleagues to oppose the Bumpers smendment.

Mr. GRAHAM. Mr. President, the space program is an investment in our Nation's future. A commitment to continued space exploration means a commitment to providing for the prosperity and wealth of future generations. No one can predict the exact outcome of our investment in the international space station, but I believe that the continued exploration of space will present many positive opportunities.

First, the space program will provide significant contributions to the well-being of mankind, both in America and around the world. We have already seen the results of space-related research in life sciences, and the potential for expansion and further development is virtually limitless.

Second, we must consider our Nation's leadership role in high-technology activities and international competitiveness. The areospace industry is a significant area of international competitiveness, and we should support our space program if we desire to maintain and enhance our position as a world leader in space science and exploration.

Third, the case today for such activities is even more compelling as we work on space projects in a collaborative and multinational manner, especially with the Europeans, Japanese, and Russians. International participation in the program contributes to increased cooperation and stability with participating partners, and the space station can be a constructive and tangible example of international cooperation at a new and more exciting level. We have the opportunity to accelerate the pace of our technological and space exploration as well as the strength of our good relations with our friendly competitors.

Mr. President, I believe that these are compelling reasons for the continued support of space exploration. The international space station is an integral part of our space program. We must invest in our future, and we must invest in ourselves.

Mr. GORTON. Mr. President, today, I lend my voice to the advocates of project space station. In order to frame this debate for my colleagues, I want to pose a few rhetorical questions. What are the critical issues surrounding space station on the Senate floor? Is it scientific worth? Is it an issue of foreign policy, or national priority? The answer to each is yes. But the underlying discontent that many of my colleagues harbor is not the scope or importance of space station—rather, it is the cost.

As a member of the Budget Committee, I fully and unequivocally support balancing the Federal budget by 2002. That task is not only a fiscal imperative, it is a moral one on which the future of this country depends. Ironically, that is where space station fits squarely in this debate. Balancing the budget is an imperative. Beginning the groundwork for America's future scientific operations may, in fact, help us do just that. Take, for example, research in cardiovascular disease. As my colleagues know, heart disease is the leading cause of death in both men and women in the United States. One in four Americans suffer from cardiovascular disease, costing this country an estimated $138 billion in medical expenses and lost productivity annually; $138 billion annually is not a small figure—it is, in fact, devastating. The conditions provided in space, and on space station in particular, will allow our doctors and scientists to see a heart functioning in microgravity. conditions for an extended duration, something not replicable on Earth or the space shuttle. NASA's work on how space flight affects blood pressure is aiding scientists to understand the complex and sophisticated operations of the heart and circulatory system. As gravity lessens, the body's blood pressure controls are altered and change. High blood pressure is a major problem for the general population of the United States. The opportunities for long duration space flight on the space station will provide a laboratory for extensive and complex research on blood pressure control and how it is affected by the presence or absence of gravity.

What does this all mean? If 1 percent of that $138 billion can be reduced, or even one-tenth of 1 percent, we will have significantly reduced some of the massive costs incurred in our battle against this terrible, and prevalent, disease.

By January 1995, 25,000 pounds worth of space station was built. By the end of this year, that poundage strides to 100,000. Upon completion, the space station will stretch 361 across and 290 feet long, with a total weight of 925,000 pounds. Orbiting 230 nautical miles above the Earth, it will be accessible to the launch vehicles of all its international partners. And with Boeing as the new prime contractor, space station is on schedule, and meeting all of its critical milestones. Perhaps more importantly, its annual cost has been fixed at $2.1 billion—according to NASA that represents less than 15 percent of the organization's total budget.

That being said, $2.1 billion is still a significant amount of money to be spent, particularly with the Republican goal of bringing the country out of its current fiscal mess. Yet I fully support space station, and its mission, because I believe the benefits associated with this program will be important, numerous and hopefully more rewarding than we can predict. From crystalline proteins to the research in osteoporosis, space station has the potential, and I believe certainty, to deliver important scientific discoveries impossible to replicate or produce here on Earth. Does that justify the cost? Absolutely. If the cure for one disease—just one disease—is found, and that if may not be as big as some of my colleagues assert, we will have paid for space station and all its associated costs, fully.

Mr. BOND. I conclude my remarks by just saying that this country must invest in its future. A research laboratory in space can provide unimaginable benefits to the American people. The space station is the only facility where research can be conducted for long durations in microgravity. The unique environment has only begun to be explored scientifically. American taxpayers are certain to benefit just as they have from other basic research, probably in ways we can never expect.

With that, Madam President, I yield the remaining time to our very distinguished colleague from Ohio, the former astronaut.

Mr. GLENN. I thank the Senator.

The Senator from Arkansas is as accomplished an orator as we have I think in the whole Congress. He would come closer to equaling Daniel Webster, I think, than anyone around here in his ability to give an oration.

Back in 1852, when we were thinking of buying some territory out West from Mexico, Daniel Webster rose in the Senate—he was opposed to that—and said as follows:

> What do we want with this vast worthless area, this region of savages and wild beasts, of deserts of shifting sands and whirlwinds of dust and cactus and prairie dogs? To what use could we ever hope to put these great deserts or the mountains that are covered to their very base with eternal snow? What can we ever hope to do with the western coast, a coast of 3,000 miles rock-bound, cheerless, uninviting, and not a harbor on it? What use have we for this country? Mr. President, I will never vote one cent from the Public Treasury to place the Pacific coast one inch nearer to Boston than it is now.

Madam President, I think probably the view that Daniel Webster took of that acquisition of territory west of the Mississippi is a little bit like the Senator from Arkansas proposes now with regard to the station.

I wish to see something come out of the station. We already have things coming out of the preparation to even have a station. As the floor manager mentioned just a moment ago, we do not even have the station up yet. So to say that that is not producing is exactly right. It is true. It is in the process of being put up. Over one-fourth of it has already been built, 50,000 pounds by our country, 60,000 pounds by other people. Less than seven-tenths of 1 percent of our budget is the total cost of the space station project right now.

From what we can see from the space shuttle with the cultures of crystals and of the experiments that have already been done on growing culture, culturing colon cancer cells, breast cancer cells, ovarian cells, what can be done with regard to AIDS, the experiments with regard to osteoporosis, right now a solution to any one of those would be more than worth all of the money that we are putting into this. This is an investment for the future.

To say that every scientist and physicist is against it is just not true. My distinguished colleague read into the RECORD a few moments ago a partial list of those who are for it—the American Medical Association, the National Academy of Sciences, the National Research Council, and so on.

This is one country that should have learned throughout its whole history that money spent on space research usually has a way of paying off in advance—more than anything we ever see at the outset. And with this being the first time we have ever had the ability to do microgravity research, it has the greatest potential payoff also.

Madam President, how much time do I have remaining?

The PRESIDING OFFICER. The Senator from Ohio has 10 seconds.

Mr. GLENN. I have 10 seconds remaining. I yield back the remainder of my time. I thank the Chair.

The PRESIDING OFFICER. All time has expired.

RECESS UNTIL 2:15 P.M.

The PRESIDING OFFICER. Under the previous order, the Senate will now stand in recess until the hour of 2.15 p.m.

Thereupon, the Senate, at 12:46 p.m., recessed until 2:15 p.m.; whereupon, the Senate reassembled when called to order by the Presiding Officer (Mr. COATS).

DEPARTMENT OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1996

The Senate continued with the consideration of the bill.

AMENDMENT NO. 2776

The PRESIDING OFFICER. Under the previous order, the hour of 2:15 p.m. having arrived, there will now be 4 minutes of debate equally divided in the usual form to be followed by a vote or in relation to the Bumpers amendment No. 2776.

Who yields time?

Mr. BOND addressed the Chair.

The PRESIDING OFFICER. The Senator from Missouri.

Mr. BOND. Mr. President, not seeing the proponent of the amendment on the floor, I suggest that the time be equally divided, and I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Ms. MIKULSKI. I ask unanimous consent that the call of the quorum be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

Ms. MIKULSKI. I ask for 1 minute on behalf of the opponents.

Mr. BOND. I yield 1 minute to the distinguished ranking member.

Ms. MIKULSKI. Mr. President, I absolutely oppose the amendment being offered by the Senator from Arkansas. I thank him for his support of the space program and also for research in the American life science community, but I want to make three points.

The Senator says this is a condo in the sky for going to Mars. We absolutely reject that. We go to Mars, and we are going by robots; we are not going by astronauts. This is to be a science lab, not a condo.

Second, the space station at one time was overweight and underpowered, not unlike the Federal bureaucracy. We streamlined the space station design to make sure that weight, power, and mission match.

And last, but not at all least, there was a question whether we could really assemble the space station in space. When we gave the Hubble space telescope a new contact lens and our astronauts showed the deftness with which they could do mechanical assembly in space, they showed that we could do it. So we now have designs to the mission. We can put it together in space. And it is a science lab, not a condo for astronauts.

I yield the floor.

The PRESIDING OFFICER. The Senator from Arkansas has 1 minute 30 seconds remaining.

Mr. BUMPERS. Let me just reiterate, No. 1, much has been made of the fact that the American Medical Association favors the space station. Let me point out that the American Physical Society—40,000 physicists in America—are adamantly opposed to the space station. Why? Because they say the benefits are going to be negligible. You cannot do anything in space with microgravity. Dr. Bloembergen at Harvard says, when you put men on the space station to do microgravity research, you just mess it up. The steps, a bump, destroys microgravity research.

And what is there about a lack of gravity that is going to cure cancer and AIDS and all the rest of it? The answer is nothing. Here are people who really are concerned about the deficit: The Cato Institute, the Concord Coalition, Council for Citizens Against Government Waste, the National Taxpayers Union, Progress in Freedom Foundation, Progressive Policy Institute. Not only do the American physicists oppose it, every one of those organizations strongly oppose it.

This bill, just this bill alone, ravages housing for the elderly, ravages sewer projects, and torpedoes the AmeriCorps Program to make room for this thing. We are going to cut $40 billion out of education in the next 7 years to pay for this?

The PRESIDING OFFICER. The time of the Senator from Arkansas has expired.

The Senator from Missouri has 25 seconds.

Mr. BOND. Mr. President, I think the argument made very compellingly by our good friend from Arkansas just shows that physicists do not know anything more about biomedical research