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DEPARTMENT OF THE INTERIOR AND RELATED
AGENCIES APPROPRIATIONS FOR 2001

HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTH CONGRESS
SECOND SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR AND
RELATED AGENCIES

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SMITHSONIAN INSTITUTION

DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 2001

WEDNESDAY, MARCH 8, 2000.

SMITHSONIAN INSTITUTION

WITNESSES

LAWRENCE M. SMALL, SECRETARY

CONSTANCE B. NEWMAN, UNDER SECRETARY

J. DENNIS O'CONNOR, PROVOST

L. CAROLE WHARTON, DIRECTOR, OFFICE OF PLANNING, MANAGEMENT, AND BUDGET

GENERAL JOHN R. DAILEY, DIRECTOR, NATIONAL AIR AND SPACE MUSEUM

MICHAEL H. ROBINSON, DIRECTOR, NATIONAL ZOOLOGICAL PARK

RICHARD H. RICE, JR., SENIOR FACILITIES SERVICES OFFICER

OPENING REMARKS

Mr. REGULA. Well, we will go forward with the continuation of the hearing we started this morning.

This afternoon we are pleased to welcome this afternoon Mr. Small, the newly-named Secretary of the Smithsonian; Constance Newman, the Under Secretary and an Awardee, I believe—congratulations—or soon to be; Dennis O'Connor, the Provost; Carole Wharton, the Director, Office of Planning, Management and Budget. That really sounds impressive. She is the money person. We need one of those up at this end. And we will hear from General Dailey, director of the Air and Space Museum; Mr. Robinson, the director of the National Zoological Park—and I want you to note that his tie was worn in my honor today, if you missed it.

Mr. ROBINSON. I will take it off and give it to you at the end. [Laughter.]

Mr. REGULA. We farmers stick together. Believe me.

And we also have with us Richard Rice, the senior facilities services officer.

Mr. Secretary, we will make your entire statement part of the record, and welcome your comments and those of the people are with you.

OPENING STATEMENT

Mr. SMALL. Thank you very much, Mr. Chairman. I appreciate very much the opportunity to be here at my first meeting of this type on behalf of the Smithsonian Institution.

As you know, I am not exactly a long-timer in the job. This is six-and-a-half weeks now since my installation on January 24th,

but, frankly, I have enjoyed the benefit of a pretty sizeable overlap period of about four-and-a-half months while I was allegedly doing my old job at Fannie Mae but actually working most of the time on the Smithsonian trying to learn about it.

I must say that it was a very exciting period, because I did not have any administrative responsibilities at the time but I had over 80 one- and two-hour meetings with all sorts of people, both inside and outside the Smithsonian. If there is anything I learned, it is that the Smithsonian's reputation for being a tremendously powerful force for good in American life is not only alive and well and intact but is really something very, very special, unique, and fundamental.

Essentially, what I saw that people feel about the Smithsonian is that it is a place that really has the power to engage Americans in grasping what has gone into their cultural heritage, their scientific heritage, their historical heritage, and if there is anything that has inspired me, it is that by talking to these people I have seen how important it is to protect and enlarge the fundamental role that the Smithsonian plays.

I think that one of the things that was made eminently clear to me by the Regents is that this is an institution which cannot be presided over. This is an institution that needs to be led.

It is now at a point in time in its history where its size, its complexity, its reach, and the diverse nature of its operations really say that it has to be managed in the way any top-quality 21st-century organization can be managed. And, while it has a lot of venerable traditions that go way back to its founding in the 19th century, there is a lot that has to be done to make it a modern, fast-moving, and agile organization.

I have been asked by any number of people who have known me well, and in some cases known me for the 36 years that I have been in institutional life, how long I am going to do this job. And when the Regents asked me about it, they said they wanted to have an indication of interest as to tenure, and they said they were interested in eight to twelve years, which would take me, if it is twelve, to seventy. And I said yes, that is what I was interested in doing.

And other people then said, "Well, if you would stay that long, what is it that you want to get done there? What is it that you want to accomplish over the course of what would be for you the seventh decade of your life?" my sixties. I have said very simply, "What I would like to see done first is to see the Smithsonian be able to touch significantly more lives in America than it touches today in terms of this role of contacting and connecting Americans to their cultural heritage."

I think that can be done in any number of ways. The first priority I have is the expansion of the public engagement role of the Smithsonian. First of all, that is going to happen here in Washington, D.C., by the opening of the new museums.

We have the National Museum of the American Indian opening up and we have the new facility—and "facility" is not an appropriate word to describe what I believe is going to be a museum where the one person who is not yet on the payroll is going to have to be a resident cardiologist for the people when they have the at-

tack when they walk in and they look and see what is probably the biggest room in the world with 178 aircraft in it. I do not think there is ever going to be anything that will compete with this in the world. This is going to be spectacular, and General Dailey is going to talk about that. After I am done, he is going to speak on it.

This museum is, as you know, a branch of the already most successful museum in the world, so I think we are going to be seeing attendance figures over the years that are going to knock the socks off everybody.

The National Museum of the American Indian, I do not have to point out, is on the most valuable piece of real estate now left in the United States, in between the most-visited museum in the world, which has got 50 percent more visitation than any other museum in the world, and the Capitol. I think that when that opens up, with its fabulous collection, I do not think there will be a school teacher in America who would dare not go into it once they are here in Washington. So I think we are going to have millions of visitors there.

So I believe also, with the re-opening of the Patent Office Building, which you have visited, and a complete retooling of the two institutions that are inside, so that we really start to build some visitation, I think that we are going to have, just by the force of the presence of these three institutions, significantly more than the 35 million visits the Smithsonian is getting already today.

SMITHSONIAN AFFILIATIONS

The next thing that I think is really vital for the Smithsonian is to take itself out of Washington, D.C. I think that what we see in the United States is the south, the west, the southwest are the places where the population is expanding. We are also more than aware that 10 percent of the population of the United States is now foreign born, has not had, in many cases, the experience of coming into contact with the roots of American culture.

We also know that the so-called "minority" populations of the country will become the majority some time during the course of this century. They have not been traditionally as strong, in terms of attendance at museums, as others.

We also know how important the whole area of kindergarten through college education is.

I think the Smithsonian has to do a lot more to reach those populations, and I think the way that we can reach them fundamentally is by taking the 139 million objects that are in storage out of our 141 million objects and affiliating ourselves with thousands, if possible, of museums around the United States and taking these objects and putting them on display and making other museums and other cultural centers Smithsonian affiliates.

We already have a program that is doing this. I have yet to have one meeting with one institution around the United States that does not want to engage with us. It is a complete win/win proposition.

We have the objects. New museums and old museums have the facilities, but they do not have what we have. The Smithsonian

really has a lock on some of the greatest objects that have emerged in the history of this country.

Mr. REGULA. I was at the Presidio on Sunday and they are thrilled with the fact that you have a team out there looking to put in a sort of "Smithsonian West".

Mr. SMALL. And the week before that I was in Los Angeles. I visited with the Japanese American National Museum. They would love to become an affiliate. I had people come to visit me yesterday from the governor's palace in New Mexico. They would love to become affiliates. And there is yet to be an organization that I have been in touch with that—we say, "We have objects that could be of interest to you." They say, "We like them." We say, "Would you like to be an affiliate?" They say, "Can we put 'Smithsonian' on the door?" We say, "Yes." And they say, "Terrific."

Mr. REGULA. Yes.

Mr. SMALL. And essentially it will help them with their ability to engage their local populations and it helps us become a ubiquitous presence in the United States and allows the people of America to see that the Smithsonian just is not some iconic set of buildings in Washington but also a force for good in their own communities.

That can also be tied in with other resources that have been developed within the Smithsonian that I think are fabulous. For example, we already have the largest traveling exhibition service in the United States—40 to 50 exhibitions moving around the United States constantly. We get five to six million visitors a year in that. That is terrific for going to rural areas, which is very, very important. It is terrific for getting into certain places in inner cities where there might not be a museum presence.

These are not exhibits that are hard to travel. There is no greater expertise in the world than the Smithsonian in moving them around. It is a perfect adjunct to all of this.

Remember, also, we have a Smithsonian associates program. "Smithsonian Magazine" has 2.1 million subscribers, and there are another four or five people a month who read each magazine, so we have 120 million plus instances of readership. It is the 25th-largest magazine in the United States, as big as "U.S. News and World Report." Those subscribers are members of the Smithsonian. We know where they are in the United States, and they take hundreds of thousands of hours of courses and trips of all sorts and attend speaking engagements by Smithsonian scholars. That can be tied into our affiliations and our traveling exhibition programs.

We now have an emerging set of websites. There are over 100 websites in the Smithsonian, with 20 million visits a year being paid to the Smithsonian websites. There is no reason, after we affiliate in—let us say the Presidio—why we would not take the subset of websites that relate to the Presidio, go to the school systems of that area, tie them into education programs set up by our education department, link all that together. That is another way to carry out the outreach that we want to have to those communities.

If you look at the African American, Hispanic, Asian American, and Pacific Islander communities, there is no reason that the Smithsonian should not be the epicenter of those museum movements. I would love every African American museum, every His-

panic museum in the country to say the best partner they have helping them build is the Smithsonian, in terms of working with them from the curatorial and research side and in terms of lending them objects. We have thousands of objects that we can help them with.

So I think this is the way that we can get out and get across America. I think it is exciting. It clearly is a win/win proposition. I see no down side to it. And if anyone says after ten years, "What do you want to see happen in terms of public engagement," I want to see if anyone says, in 50 States in the United States, "What is connecting us to our shared sense of national identity?" the next two words should be "Smithsonian Institution." That is a prime objective in terms of the type of outreach that we want to bring about.

SCIENTIFIC RESEARCH

The second area that I think is tremendously important is to focus in a much sharper way the scientific research activity of the Smithsonian. This committee well knows that there is a very substantial devotion of resources to scientific research at the Smithsonian. We have centers of excellence that are the Astrophysical Observatory at Harvard, which is the largest consumer of financial resources in the Smithsonian. We have the Tropical Research Institute in Panama, and then a range of other scientific activities.

We have reorganized. Dennis O'Connor, who was our provost and is now the Under Secretary for Science, has put together a science division, and what I would like us to do is come up with a set of inspiring goals for science, understandable in "USA Today" language, so that when we talk to people about what the Smithsonian is doing—

Mr. REGULA. Did you say that was in "USA Today"?

Mr. SMALL. No. I am saying I want "USA Today" language, the kind of language the American people read and understand, when they are asked, "What is the Smithsonian doing in science?" Today, when I ask Members of Congress, when I ask people in the general public, when I ask the press, "What is the Smithsonian doing in science," the answer is people do not know.

Mr. REGULA. Well then we should have "USA Today" interview you.

Mr. SMALL. We certainly should. The answer is, "Why are they not doing it already?"

Mr. REGULA. I am going to suggest it to them.

Mr. SMALL. I quite agree with you. And the Smithsonian needs a whole program to let people know what it is doing in science.

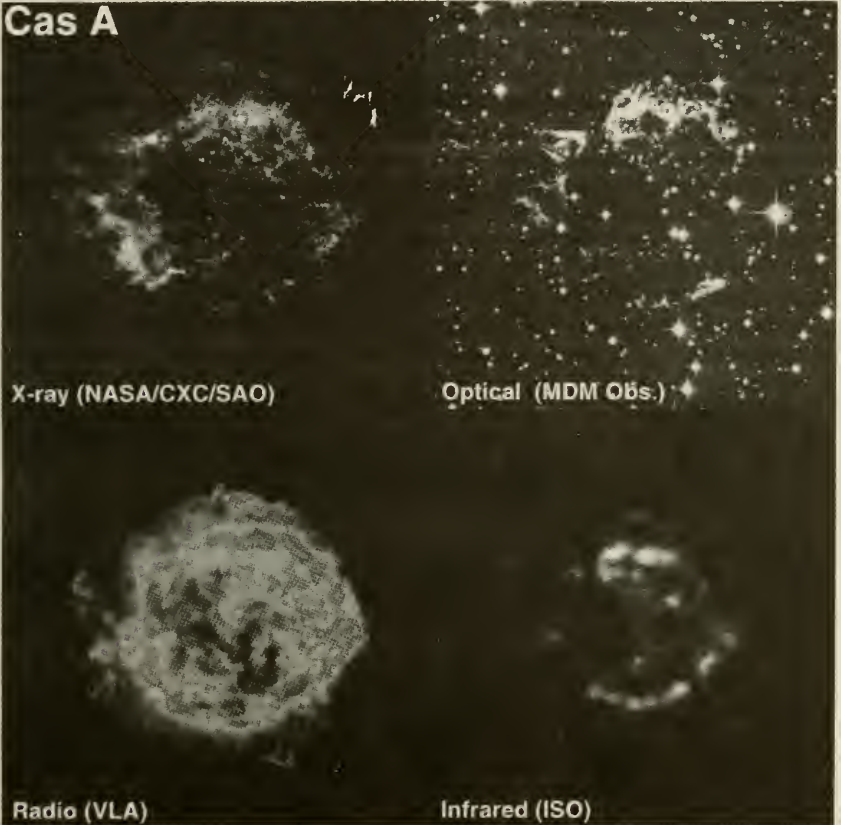
You know, we have today the greatest development that we have ever seen in the world of astrophysics, in the Chandra x-ray telescope that was launched on the satellite that left the earth last July that is sending back the sharpest images that we have ever had and the most significant images of deep space we have ever had.

I read about the Chandra telescope and the satellite that went up all the time. If the Smithsonian is mentioned one out of ten times, it is a lot, and the Smithsonian built it and owns it and people do not recognize it.

[The information follows:]



Chandra X-Ray Observatory



These images show Cassiopeia A as viewed by four different types of telescopes. The X-ray image of the Cas A supernova remnant in the upper left is the official first light image of the Chandra X-Ray Observatory. Two shock waves are visible: a fast outer shock and a slower inner shock. The bright object near the center may be the long sought neutron star or black hole that remained after the explosion that produced Cas A. The optical image of Cas A shows wisps of matter with a temperature of about ten thousand degrees containing high concentrations of heavy elements. The infrared image of Cas A shows dust grains that have been swept up and heated to several hundred degrees by the expanding hot gas. The radio emission comes from high energy electrons moving in large spirals around magnetic field lines of force.

CXC

Mr. SMALL. This is what people saw, in the night sky—Cassiopeia. This is what people used to see, and that is all they thought that was there. And then, with what is being done on the x-ray telescope now, that is the image of what is really there. There is much more than people ever realized.

Now, I am the last guy who could interpret what the detail of it means, but the fact is that people are learning, just as a result of this development, more about space than has ever been known before. They are learning that there are things there that we did not know were there at all.

And so this is something where we have 500 people. The Smithsonian Astrophysical Observatory is the biggest operation in the Smithsonian. It was inaugurated in 1890. The third Secretary of the Smithsonian, who was an astronomer, put it in place. It is a joint venture with Harvard that has been a huge success. It gets a tremendous amount of funding on its own through grants that it competes for. We have not gotten the kind of recognition for it deserves.

The same thing is true of the Tropical Research Institute in Panama. We are not a tropical country. A huge percentage of the world's biological species, whether it is plant life or animal life, comes from the rain forest. Our only significant center in the United States for studying the rain forest, and now our only really large government or quasi-government operation in Panama, is the Smithsonian Tropical Research Institute. That is something where people are wowed every time they go down there. I am going down at the end of this month for the first time, but I have heard nothing but good things about it.

On the other hand, throughout the almost 154 years of the Smithsonian, there has been a great deal of scientific research that has been going on, and I find it hard to believe that it all fits into four or five highly-focused prioritized goals, and I think that in today's world there is no institution that can say it wants to do all of science. There is nobody who is doing a large percentage of science, because science is so large.

What I have asked Dennis to do is work with our people and define the four or five areas where we can really say the Smithsonian can be the best in the world, and then build our whole approach to working on those four or five things. That is something we are going to try to do.

ADMINISTRATIVE SYSTEMS

The third thing that I want to make sure gets done over the course of the next decade is to bring the boring basic management systems of the Smithsonian up to a modern level.

I spent three-and-a-half decades in the large corporate world, and I have never been in a place that cannot close its books in two weeks after the month's end. How about two months after the month's end? How about three months after the month's end?

Now, it is all under control, from what I can see, but the fact is there is not a number that—everybody has got three different number systems for everything. The numbers are difficult and unwieldy to deal with, and suddenly it is 1950 when you walk in the door.

I would like to see a financial and accounting and management information system that is modern.

Mr. REGULA. Do all your computer systems within the Smithsonian talk to each other? Are they compatible?

Mr. SMALL. Yes, but they all have to be junked pretty much because they are all antiquated and creaking. The good thing about it, you know, if you have to put in new computer systems, usually your big challenge is what I call "legacy systems," how do you modify the new system so it can cope with the old system.

Mr. REGULA. Right.

Mr. SMALL. You do not have to do that here. You can just throw out the old system, because everything can be thrown out. But, fortunately, we are in an age where systems—there is nothing that is complicated about the Smithsonian's financials. It is not like a financial institution. It just needs three to five years of work to get it up so it has basic systems.

On the human resources side, this is an institution that has 6,500 staff and 5,000 volunteers—without whom it could not possibly run—and it needs to have the kind of disciplines in human resource management that you would find in any modern enterprise—management training for people who supervise other people, all of the basics—performance assessments that are not government forms that you just check boxes and hand to somebody, but actual meetings with people where you are saying to people, "Here is what you can do to improve next year. Let us meet again next month and check on it."

All of what I have seen in that area is pretty perfunctory, not substantive. I would like to see that significantly improved.

CONDITION OF SMITHSONIAN BUILDINGS

And then something that we have talked about, the buildings that are some of the greatest buildings of the American people here on the Mall are, in many cases, shabby, dingy, and falling apart.

Mr. REGULA. What is your estimate of your backlogged maintenance?

Mr. SMALL. I do not know all of the backlogged maintenance requirements. I have seen that there was something like a \$250 million number that was tossed about with this committee in past years. There was a \$250 million number that I have seen from years before, but certainly I have not been there long enough to get it to where it ought to be.

I did get some statistics out on something that I was curious about, because you start with a fundamental belief, in my view. Here I am talking only about the public buildings. You are getting almost two million people walking into the Smithsonian castle, almost eight million into Natural History, in a good year six million into American History. The Arts and Industries Building gets big traffic. And what I looked at were the numbers, and there is 3.6 million square feet of public space, the museum space. That is not the storage space or the offices.

I looked at what we got for the last three years, and what we are doing in R&R. And let me preface this by saying neither the Administration nor this committee has really turned down the Smithsonian, so when I am speaking critically here I am speaking

about us, I am not speaking about this committee or anyone else, because this committee has gone from \$25 million in rehabilitation and repair money in 1995 to—we are asking for \$62 million, and we have gotten only support.

What I am really saying is that the levels that we have been requesting are not going to do the job. You walk into the Arts and Industries Building, and there are plastic tarpaulins hanging from the ceiling to protect the people going in from falling plaster and paint.

Now, this is the United States of America on the Mall. We are giving exhibitions that are attracting people, and we are putting them into facilities that are dingy and dirty and shabby.

The Patent Office Building that we just closed down is a great, great building. It was built in 1836 by the same guy who designed the Washington Monument and the Treasury Building. It is fabulous. It is not falling apart from the standpoint of the foundations, but some of the greatest rooms in Washington look awful today. They have to be fixed.

What I would like to see our buildings do is inspire people as much as what is inside of them. That is what a great museum is all about. The Capitol, for example, is my idea of the way something should look when an American comes to Washington.

It is interesting, and I got out some numbers. The Smithsonian Institution's public space is five times larger than the Capitol, but the Capitol has gotten 25 percent more money for rehabilitation and repair over the last three years.

Once again, this is us asking, not anybody turning us down.

To give you an idea of the Smithsonian's space, it is 40 percent bigger than the Senate office buildings, but they got two-and-a-half times what we got over the last three years.

Now, I am not knocking Congress, once again, because it is what we asked for, but the model should be—

Mr. REGULA. That is the Senate. That is okay. [Laughter.]

Mr. SMALL. I understand that. You know, I just happened to pick it by chance.

But the model should be the Capitol. In my view, the Capitol looks great. And when I walk in the Capitol, and I think any other American who walks in the Capitol, you say, "This is the way my Capitol should look," and that is the way our museums should look. And I just do not think there should be another answer to that.

I understand that the Appropriations Subcommittee has to get money from the Appropriations Committee, the Appropriations Committee has got to get its money, so I do not know how to fix that problem. I am just telling you, in terms of my job and what I have to at least tell you about, is these places should look terrific, and they should look terrific all the time, and you cannot go into the greatest museum in the world, the Air and Space Museum, where you are getting 50 percent more people than the National Gallery of Art, 250,000 square feet of floor space with 100,000 square feet of chewing gum on the carpet. I mean, that is just not right, and we have got to fix those things.

I am somewhat enthusiastic about that area.

FUNDRAISING

The last thing that I would like to get done is, as you know, the Smithsonian had not been aggressively involved in private sector fund raising until the 1990s, and my predecessor really started a whole number of wonderful initiatives that are starting to pay off.

If you look at the pace of it—I just looked at some numbers the other day—back in 1997 they raised \$51 million, then in 1998 they raised \$92 million. Last year, we got \$143 million, including the great, fabulously generous \$60 million gift for the project that Jack Dailey is going to talk to you about. So I think this is a trend, and I am going to devote at least a quarter of my time to fund raising in the private sector because there is nothing that I would like to see done or myself or my colleagues would like to see done that money cannot fix, as long as it is properly managed. And so I am going to put a lot of time and effort into that, and I think that is moving in the right direction.

We are also improving our business ventures, which helps us also. It is another way of raising money.

MANAGEMENT TEAM

So, all in all, I am very enthusiastic about the prospects of what we can get done. I think that the management team that we are putting in place is an excellent one. As I said, the first step that we took was we formed the Science division, which Dennis is running. We have also, to focus on this national outreach, put together a division of the American museum programs and all of the outreach vehicles. As I think most of you know, Sheila Burke, who is the executive dean at the Kennedy School of Government and was Bob Dole's chief of staff when he was in the Senate, is joining us to take over that effort and to build linkages all across America to make sure that we can really do as I say in terms of becoming a ubiquitous presence.

In terms of the rebuilding of the infrastructure systems, Connie Newman told me, unfortunately, when I first came to the Smithsonian, that she was once again going to start a new chapter of her life after eight years of great service. Connie is sort of like one of these jewels that we have in our collections at the Smithsonian—she is unique, she is irreplaceable, and I am very sorry—

Mr. MORAN. Not antique. You make her sound like she is old—she is young. [Laughter.]

Mr. SMALL. I said a jewel. I did not say an antique, Mr. Moran. [Laughter.]

I am not dumb enough to do that. Her office is next to mine.

So we will have to try to get someone to fill that position, and she is helping me right now in interviewing. We will get that done.

We then have another position to supervise those art museums that I do not think really fit within the American initiative, like the Hirshhorn and the Freer/Sackler and the African Art Museum.

And then, finally, we have a business division.

So I am enthusiastic. I think we have got a great deal to accomplish, and I do not see why we cannot accomplish it as long as we put our noses to the grindstone and work on it real hard.

We really appreciate everything that this committee has done for the Smithsonian, and I do not want anybody to misinterpret my comments about space as anything other than saying we are not doing our job in making the case yet to get the funds that we need to make the space be what it should be.

Mr. REGULA. Well, thank you.

[The statement of Mr. Small and biographies follow:]

**Testimony of Lawrence M. Small, Secretary
Smithsonian Institution
before the
House Interior Appropriations Subcommittee
March 8, 2000**

Good afternoon, Mr. Chairman and Members of the Subcommittee. I appreciate very much the opportunity to appear before you today for the first time on behalf of the Smithsonian Institution.

I have been at the Smithsonian officially for only six and a half weeks, since my installation on January 24th, but I was unofficially at the Smithsonian from the moment I was chosen as Secretary last September. I could not help but begin thinking immediately about the Institution and about how it might best be served at the start of the new century. So I took advantage of the four months between my nomination and my installation to learn as much as I could about the history and traditions of the Smithsonian. Part of what I learned came from the written record, but the more important part came through conversations with dozens of individuals who were able to speak knowledgeably about what the Smithsonian has contributed to American life in the 154 years since it was founded. The summary plan I want to share with you today for what we hope to accomplish at the Smithsonian in this decade emerged from those months of reading, consultation, and reflection.

I met four times with my predecessor as Secretary, I. Michael Heyman, for two hours each time. I met the directors of the Smithsonian museums and visited most of the major facilities of the Smithsonian here in the United States. I spoke to university professors who specialize in museums and to scientists familiar with the scientific activity of the Smithsonian. I had more than 80 meetings in all, and I was both stunned and exhilarated by what I learned in the course of them.

The fundamental lesson, reinforced again and again by the particular evidence each new participant brought to the conversation, was that the Smithsonian has been an immensely powerful force for good in the life of this country. The role it plays in American society is unique and fundamental. More than any other institution, the Smithsonian explains to Americans who they are and what America is. Of course, the Smithsonian does even more than that. Its embrace is much wider than the temporal or geographical boundaries of this country. In a very real sense, the Institution is a monument to American curiosity about the entire world—the natural world and the world of peoples and cultures.

But the Smithsonian is a monument, in particular, to Americans' curiosity about themselves. No other institution, anywhere, documents America and the American people so comprehensively. When visitors to the Smithsonian see portrayed through objects from the collections the astonishing range of forces and experiences that have shaped our nation and our national identity, they should be inspired to believe that there are no limits to what individual Americans can do and what this country can do.

In my four and a half months of inquiry and exploration, then, I became convinced of the incomparable power of the Smithsonian to engage Americans in experiencing their history and their cultural and scientific heritage. And I became convinced as well of the importance of protecting and enlarging that fundamental role.

At the same time, I was aware of what the Board of Regents had told me when they asked me to accept the position of Secretary. They reminded me that this marvelous institution is now 154 years old, has grown into an enterprise of extraordinary size and extraordinary complexity, and often shows its age. The Members of the Subcommittee are familiar with some of the most striking statistics: the 141 million objects in our care; our 6,500 staff members and 5,000 volunteers; our 400 buildings with 7.5 million square feet of space; the 35 million visits each year to our various exhibits, in Washington and elsewhere.

The Smithsonian is a vast enterprise that carries its own glorious traditions, some going back to the nineteenth century. And yet it must function successfully as a complex organization in the twenty-first century. What the Regents made clear to me, as was no doubt made clear to all previous Secretaries in their own time, is that the Institution requires more than a mere presiding officer. It must be led, and led in accordance with contemporary standards of management and organization.

With their injunction in mind, and with the benefit of all that I learned from the dozens of individuals who counseled me, I came to formulate the two mission statements that will set the course of the Smithsonian over the coming decade. In future years, I expect to be returning to the Subcommittee to explain in greater detail what I want to accomplish, and to seek your support for it. What I would like to do today is give you a sense of the large design of our plans and the rationale for them, and then describe some of the organizational changes we have introduced to help us achieve our goals.

Let me begin with the mission statements.

The Smithsonian will be committed, first of all, to enlarging a shared understanding of the mosaic that is American national identity by serving as the most extensive, nationwide provider of authoritative experiences that connect the American people to their history and to their cultural and scientific heritage.

The second mission is scientific. The Smithsonian will be committed to promoting scientific innovation and discovery by operating the nation's premier centers for astrophysics, tropical research, and a select number of additional specialized fields, especially in the life sciences.

To realize the two missions successfully, we shall implement a four-part program of (1) public engagement, (2) focused scientific research, (3) management excellence, and (4) financial strength.

Though the Smithsonian has been spectacularly successful over the years in attracting audiences—not just to our museums but to our publications and our educational and outreach activities—we should be able to increase markedly our levels of engagement with the public, here in Washington and throughout the country. There are a variety of means through which we can do that. We must make certain that the exhibits in all our museums are of absolutely first-rate quality—that they are on topics of compelling interest to the public and that they are mounted according to the highest standards of contemporary museum presentation. I am speaking of both the new exhibits we introduce and the many current permanent exhibits that should be completely redone—reconceived and reimagined for today’s audiences.

Then, too, we can give the public new reasons, on a spectacular scale, to visit the Smithsonian. We are building two new museums—the Dulles Center of the National Air and Space Museum, adjacent to Dulles Airport in an area that is becoming a major destination, and the National Museum of the American Indian, adjacent to the National Air and Space Museum on the Mall and at the foot of Capitol Hill. Both should prove irresistible attractions. The Dulles Center will have more, indeed many more, of the same kinds of objects that have made the Air and Space building on the Mall the most visited museum in the world. General Jack Dailey is here today and will speak about this absolutely terrific project. And the National Museum of the American Indian will have the twin advantages of its incomparable collections and its location beside the most visited museum in the world. It is inconceivable to me that any teacher taking a class to the one will not also lead the class to the other. If we execute the building projects flawlessly and to the very highest standards of quality, the two new museums are certain to draw great crowds and be wonderfully successful.

The National Museum of American Art and the National Portrait Gallery share the Old Patent Office Building in downtown Washington. We closed the Patent Office at the beginning of the year to undertake a multiyear renovation that will bring its systems and infrastructure securely and safely into the twenty-first century. But the building itself is so grand and irreplaceable a structure that we should seize the opportunity presented by the closing to do more than replace the essential but hidden parts the public will never see. We should restore the entire structure to glory and make it one of the irresistible attractions in the District. We want visitors to come to see the art collections in the building, and we want them to come to see the building itself, because it too is a work of art.

Let me say a few words more on the general state of our physical facilities. To me they are simply too shabby, and that is not acceptable. These grand buildings are the American people’s buildings, and when the people enter them, they should feel proud, just as they do when they enter the Capitol building or the Supreme Court. The buildings are emblems of the nation. They should inspire awe, and they should shine. I am committed to making them shine. With the Chairman as champion, the Committee has been wonderfully generous in providing increased funds for the renovation and restoration of our buildings, and we are enormously grateful for them. I want to assure

the Chairman and the Members that the funds are being well used and that their increase in this budget is especially welcome.

Some of the buildings are venerable, which is a polite word for very old; some are heavily trafficked; and some are both. Indeed, the Air and Space Museum is the most heavily trafficked museum in the world, by a wide margin, and the National Museum of Natural History is the second busiest museum. The National Museum of American History has about the same traffic as places like the National Gallery, the Metropolitan Museum of Art, the British Museum, the Louvre, and other great museums of the world. As you well know, use takes a toll. It's a toll we are happy to incur. In fact, we want to increase the use of the buildings. But we must keep age and use from bringing dinginess in their wake. In future years, I expect to come back to the Committee with budgets that address our physical needs.

Let me return to our plans for lifting the levels of our engagement with the public. The lure of Washington will always bring visitors to our sites here. But we must find ways of reaching new audiences as well, who may not have heard of the Smithsonian or who may not realize that its treasures are their treasures too. The demography of the United States is changing rapidly. This nation of 275 million people now has the highest level of foreign-born individuals in its history—with one out of ten of its inhabitants having been born outside the United States. There are major segments of the population the Smithsonian is not yet reaching. The greatest population growth is occurring in the South, Southwest, and West, areas outside the North, Northeast, and Middle Atlantic regions from which the Smithsonian has traditionally attracted its largest audiences.

Because it may be difficult for new audiences to come over great distances to us, we must go to them. There is one way in particular we can do that. We have in our collections some 141 million objects—and fewer than 2% of them can be on display at any one time. The Smithsonian should become the epicenter of the museum movement in the United States. Thousands of growing and emerging museums around the country lack the very thing we have in abundance—objects. We must bring the Smithsonian to the people of the United States. Our collections are their collections.

We should lend objects to any museum in the United States that can responsibly receive and care for them and that will benefit from having the Smithsonian as a partner. My predecessor began the wonderful program of Smithsonian Affiliations that invites museums around the country to become partners with the Institution in displaying its resources. I intend to have that program develop a presence in every state and in as many communities as possible within each state. In addition, we shall bolster the Smithsonian's program of traveling exhibits, adult education courses and trips, and efforts to appeal to students from kindergarten through college. We want the Smithsonian to become more literally than ever what it has traditionally aspired to be, America's museum.

Moreover, we want the public's experience of the Smithsonian—through our exhibits, publications, Web site, educational activities, restaurants, and gift shops, through every

means, in fact, by which we reach the public—to be at the highest levels of quality and satisfaction. We are committed to taking the measure of audience response to the Smithsonian and its services—to know better what impresses them and what falls short of their expectations and, on that basis, to make the appropriate adjustments in what we do.

Let me turn from our goals for public engagement to a consideration of how we shall continue the great scientific tradition of the Smithsonian. Our first priority is to make certain that we have a real focus in our scientific work, that we are clear about what we are trying to accomplish, and that the work accords with a compelling, articulate, inspirational mission for science at the Smithsonian.

We are immensely proud of the Smithsonian's scientific achievements, for example, in astrophysics, tropical research, and a select number of other specialized areas. But as the Members know all too well, scientific research has become so limitless and expensive an undertaking that no institution, not even the greatest university, can any longer encompass it all. Prudent institutions will choose the areas in which they can excel, and then establish a clear focus and clear priorities within those areas. That is what the Smithsonian will do.

We shall commission a major study of the past decade of scientific activity at the Institution, to identify what has been genuinely innovative and distinctive. The findings of the study will allow us to focus thereafter on a select number of areas to which the Institution can make so strong and sustained a commitment that the outcomes will be absolutely world-class. And we shall phase out over time, in an appropriate fashion, such activities as we decide are outside our chosen areas of specialization.

The additional point I wish to make about our scientific activity is that the general public has too little knowledge of it. They do not associate the Smithsonian with its scientific accomplishments. We are committed to informing the public more forthrightly than we have done in the past, and in nontechnical terms, about the Smithsonian's part in the advancement of contemporary science.

For the Smithsonian to succeed at its two large missions of selective scientific endeavor and vigorous public engagement, we need to bring the full array of the Institution's management functions into the 21st century. Of our current financial and accounting systems, the best that can be said is that they serve their purpose and are under control. But they are terribly unwieldy and decades out of date. We must bring them to the level of other contemporary organizations with budgets of our size, missions of our scope and complexity, and comparable numbers of employees serving many millions of people each year.

So too with our information technology systems. A comprehensive plan to redo them has been drawn up for my consideration. Because so much in the current systems environment is not worth keeping (with the notable exceptions of our Web site and the system for our libraries), we are in the favorable position of having to start anew, and we will be able to build a flexible and adaptable Web-based computing system that will be

appropriate—and, indeed, be no more than the norm—for a well-run contemporary organization of our scale.

A new organizational structure for the Smithsonian will bring coherence, focus, and flexibility to the twin missions we have set for the Institution. The various units of the Smithsonian have been divided into five groups: science; American museums, programs, and national outreach; art museums with internationally oriented collections; financial and administrative services; and business ventures. Dennis O'Connor, the former provost of the Smithsonian, has become the under secretary for science. Sheila Burke, currently the executive dean at Harvard University's John F. Kennedy School of Government and formerly the chief of staff to then Senate Majority Leader Bob Dole, will be under secretary for American museums, programs, and national outreach. The under secretary for financial and administrative services is still to be named, as is a director for the group of art museums with internationally oriented collections. The Institution's revenue-producing operations will continue to be led by Gary Beer, as chief executive officer of Smithsonian Business Ventures.

At the time of my election, Connie Newman, the current under secretary of the Smithsonian, told me, to my great regret, of her plans to make a career change sometime in the year 2000. Like the one-of-a-kind gems in the Smithsonian collection, she will be impossible to replace. Her wisdom, spirit, energy, and commitment to the Institution have been extraordinary. At my request, Connie has agreed to continue in her current role until we select the new under secretary for financial and administrative services.

The FY 2001 budget request you have before you was formulated before my arrival at the Smithsonian. While I agree with the overall priorities given to the items of increase in the budget, after further examination and the concurrence of the Administration, I intend to seek your approval and support for realigning portions of the base funding. We are assessing the base funding available to the Institution's museums, research institutes, and offices, with a view to determining how it can be used most effectively to strengthen our national outreach effort and to focus on those parts of the Institution with the greatest potential to reach more visitors.

Mr. Chairman, I appreciate the opportunity to speak with you today, the first of what I hope will be a long series of such opportunities. I would be pleased to respond to any questions you and the other Members of the Subcommittee may have concerning our plans and aspirations for a 21st century Smithsonian Institution that will be an engine of inspiration in America.



Lawrence M. Small

Secretary of the Smithsonian Institution

Lawrence M. Small was installed as the 11th Secretary of the Smithsonian Institution on Jan. 24, 2000. He was named to the position in September 1999, succeeding I. Michael Heyman who retired after serving for five years.

Prior to becoming Secretary of the Smithsonian Institution, Small, 58, served as President and Chief Operating Officer of Fannie Mae, the world's largest housing finance company, since 1991.

Before joining Fannie Mae, Small worked at Citicorp/Citibank, the largest U.S. banking institution, for 27 years, ending his tenure there as Vice Chairman and Chairman of the Executive Committee of the Board of Directors. His numerous posts with that firm entailed work both in the United States and abroad, and in positions such as the company's senior executive in charge of Commercial Banking, Information Technology, Human Resources and Worldwide Corporate Banking.

His service on nonprofit and corporate boards has been extensive, including the National Building Museum; Mt. Sinai-NYU Medical Center and Health System; the Spanish Repertory Theatre; the U.S. Holocaust Memorial Council; Brown University; Morehouse College; the Collegiate School; the Joffrey Ballet; the American Women's Economic Development Corp.; the International Executive Service Corps; the Instituto de Estudios Superiores de la Empresa in Barcelona; and the Greater New York Councils of the Boy Scouts of America. He serves on the boards of trustees of the John F. Kennedy Center for the Performing Arts, the National Gallery, the Woodrow Wilson International Center for Scholars, and is a member of the boards of directors of The Chubb Corp. and Marriott International Inc. He is chairman of the Financial Advisory Committee of Trans-Resources International, the parent company of Haifa Chemical, an Israeli firm. He also has been a board member of Paramount Communications Inc., an entertainment and communications company, and of Fannie Mae and Citicorp/Citibank, the financial service companies where he was previously employed.

Small graduated from Brown University in 1963 with highest honors in Spanish literature and was elected to Phi Beta Kappa. Small holds an honorary Doctor of Laws degree from

Morehouse College in Atlanta, where he was a member of the Board of Trustees from 1973 until 1999.

Small and his wife, Sandra, have been married for 32 years. Sandra Small is a licensed U.S. Federal Court Spanish-English simultaneous interpreter. The couple has two children — a son in law school and a daughter in college, who is pursuing a degree in fine arts.

The Smithsonian is the world's largest combined museum and research complex with 14 museums and galleries and the National Zoo in Washington, and two museums in New York City. The total net revenue (all federal and trust funds) for fiscal year 1999 was \$570 million, of which \$412 million is a direct appropriation from Congress. The Smithsonian has about 35 million visits per year to its museums, the Zoo and its traveling exhibitions around the country. Eight million people read Smithsonian magazine every month. The Smithsonian's 6,400 employees and 5,000 volunteers work in Washington and New York and at research facilities around the world.

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NOTE TO EDITORS: For photos or more information, call the Smithsonian Office of Public Affairs, (202) 357-2627.

CONSTANCE BERRY NEWMAN

Constance Berry Newman became Under Secretary of the Smithsonian Institution in July, 1992. She was Director of the Office of Personnel Management from June, 1989 to June, 1992. For more than 20 years she managed public and private organizations. Among her major management positions were: Assistant Secretary of the United States Department of Housing and Urban Development, Director of VISTA, and President of the Newman & Hermanson Company. She was also Commissioner and Vice-Chairman of the Consumer Product Safety Commission.

From 1987 to 1988, Ms. Newman worked for the Government of Lesotho as a Cooperative Housing Foundation consultant to advise the Ministry of Interior regarding the establishment of a housing corporation to receive World Bank funding.

During her public career which began in 1961, Ms. Newman worked both as a career public servant and a political appointee with four Presidential appointments, three of which were confirmed by the Senate.

Ms. Newman was a Woodrow Wilson Visiting Fellow from 1977 to 1985 and a member of the Adjunct Faculty at the Kennedy School, Harvard University from 1979 to 1982. She has received an Honorary Doctor of Laws from her Alma Mater, Bates College, Amherst College and Central State University. In addition to receiving an A.B. from Bates College, she received a Bachelor of Science in Law degree from the University of Minnesota Law School. In 1985, she received the Secretary of Defense Medal for Outstanding Public Service. At present she serves on the Board of Trustees of The Brookings Institution and Bates College and is a member of the District of Columbia Financial Responsibility and Management Assistance Authority.

J. DENNIS O'CONNOR
PROVOST, SMITHSONIAN INSTITUTION

J. Dennis O'Connor joined the Smithsonian Institution in December 1995 as the Institution's first Provost (chief programs officer). He is responsible for central planning, integration and oversight of research, exhibitions and education of the largest museum and research complex in the world.

Dr. O'Connor is a prominent biologist and educational leader who came to the Smithsonian from the University of Pittsburgh, where he served as Chancellor from 1991 to 1995. A native of Chicago, he earned a bachelor's degree from Loyola University, a master's degree from DePaul University, and a Ph.D. from Northwestern University. Dr. O'Connor has served as Dean of the Life Sciences at the University of California, Los Angeles, and at the University of North Carolina, Vice Chancellor of Research and Graduate Studies and Dean of the Graduate School, and as Vice Chancellor of Academic Affairs and Provost.

L. Carole Wharton
Director, Office of Planning, Management and Budget
The Smithsonian Institution
Washington, D.C.

Dr. L. Carole Wharton was appointed to the position of Director of the Office of Planning, Management and Budget in December 1991. Prior to joining the Smithsonian, she spent three years as the Chief Planning Officer at Drexel University in Philadelphia. In that role she was responsible for leading the university's first strategic planning process, developing an institutional research office, and coordinating budget projections and priority setting. Before going to Drexel, she was engaged in planning activities at the University of Maryland Central Administration, serving over six years as the Director of Capital Planning. In that position, she was responsible for planning, programming, and budgeting of all university facilities, as well as for the acquisition and disposition of real properties.

Dr. Wharton has also served as Assistant Dean of Academic Development at St. Mary's College of Maryland, Dean of Students at Marjorie Webster College in Washington, D.C., and as a faculty member at Columbus College in Georgia.

A native of Virginia, Dr. Wharton holds a B.A. from Emory and Henry College, an M.A. from Florida State University, and an Ed.D. from The George Washington University.

GENERAL JOHN R. DAILEY, USMC (Ret.)

John R. (Jack) Dailey, retired United States Marine Corps general and pilot, assumed the duties of director of the National Air and Space Museum in January 2000. General Dailey comes to the Museum from the National Aeronautics and Space Administration (NASA), where he had been the Associate Deputy Administrator since retiring from the United States Marine Corps in 1992. At NASA, he led the Agency's reinvention activities.

His career in the Marine Corps spanned thirty-six years and included extensive command and staff experience. He has flown over 6,000 hours in a wide variety of aircraft and helicopters. During two tours in Vietnam, he flew 450 missions. He was promoted to the rank of general and named Assistant Commandant of the Marine Corps in 1990. He has numerous personal decorations for his service in the Marine Corps and NASA.

While at NASA, General Dailey served on the President's Management Council, co-chaired the Aeronautics and Astronautics Coordinating Board, and was a national delegate to the Research and Technology Organization supporting NATO. He also serves as national commander of the Marine Corps Aviation Association and is a member of the Early and Pioneer Naval Aviators Association ("Golden Eagles").

He succeeds Vice Admiral Donald D. Engen, who died in a glider accident in July 1999. General Dailey will lead the effort to open a 710,000-square-foot-facility at Washington Dulles International Airport, which will display more than 180 aircraft and 100 spacecraft currently in storage.

The National Air and Space Museum, which opened in 1976, is home to many of the "firsts" in aviation and space history, including the Wright brothers' Flyer, the *Spirit of St. Louis*, and the Apollo 11 command module *Columbia*. With nearly 10 million visitors a year, it is the most popular museum in the world.

General Dailey was born on February 17, 1934, in Quantico, Virginia, and earned his bachelor of science degree at the University of California, Los Angeles, in 1956. He and his wife, the former Mimi Rodian of Copenhagen, Denmark, live in Fairfax, Virginia. They have two grown children, Lisa Bader and Nils Dailey.

Michael H. Robinson
Director, National Zoological Park
Smithsonian Institution

Michael H. Robinson, Director of the Smithsonian Institution's National Zoological Park, is an animal behaviourist and a tropical biologist. Immediately prior to his appointment to the National Zoo in May 1984, Dr. Robinson served as Acting Director and Deputy Director of the Smithsonian Tropical Research Institute in Panama, which institution he joined in 1966 as a tropical biologist. He received his Doctor of Philosophy from Oxford University after being awarded his Bachelor of Science, Summa Cum Laude, from the University of Wales. His scientific interests include predator-prey interactions, evolution of adaptations, tropical biology, courtship and mating behaviour, and freshwater biology. He is the author of more than 130 scientific papers and articles including a book on the courtship and mating behaviour of spiders.

RICHARD H. RICE, JR.

Richard H. Rice, Jr., was Acting Director of Facilities Services from April 1995 until January 1996, at which time the title was changed to Senior Facilities Services Officer and he was named to the permanent position.

Mr. Rice, a Registered Professional Engineer, joined the Smithsonian Institution after a distinguished career in the United States Navy, his last assignment being in the Office of the Secretary of Defense.

Mr. Rice's education includes an M.S. in Civil Engineering from Stanford University, an M.S. in Ocean Engineering from the University of Miami, an M.B.A. from Golden Gate University, a B.S. from the United States Military Academy, and completion of the Management Program for Executives at the University of Pittsburgh.

He is the designated Safety and Health Official for the Smithsonian, and heads the Facilities Services Group, comprising more than fifteen hundred employees of the Office of Physical Plant, Office of Protection Services, and Office of Environmental Management and Safety.

SMITHSONIAN SCIENCE ACTIVITIES

Mr. REGULA. It is an exciting concept.

I think what we will do is ask questions now. I would hope that if we give the Members a little more time we will get a few more to hear the Dulles report, because that is an exciting new project.

I have just one question for you, Mr. O'Connor, and that is, What are some of the exciting scientific activities that you are doing? And, with that, what kind of educational outreach do you have to share this with universities, colleges, high schools, whatever the case might be?

Mr. O'CONNOR. Mr. Chairman, I think the Secretary took certainly one of the very exciting pieces and has already presented it.

Mr. REGULA. Did I hear him correctly that there are 500 people working at SAO?

Mr. O'CONNOR. At SAO. Right. Not on that one project. On a whole variety.

Mr. REGULA. That is what I understand.

Mr. O'CONNOR. Our astrophysics group is certainly very exciting. We do perform research that has a very dramatic human impact. For example, last summer, when it was recognized that in New York City and in other eastern states there was a rather significant death of birds, it was attributed to what was thought to be a St. Louis encephalitis virus, and when we received some of the materials and developed the software program to analyze what the virus really was, it turned out to be a West Nile virus. It is the first time it has ever been in the United States. It has dramatic public health implications, and was identified through the Natural History Museum's Laboratory of Molecular Systematics and USDA, and it has been a big help up in the New York and Connecticut area in screening.

So we go from astrophysics to viruses. We also have had an impact, I think, in the agricultural systems in many of the States around the east coast. Virginia and Maryland have passed statutes that are based on our research that is done at the Smithsonian Environmental Research Center out in Maryland, the Chesapeake Bay, in which we have discovered that, if streams that feed directly or once removed into the Chesapeake are lined with trees and vegetation, they are able to take out a lot of the contamination that otherwise would end up in the Bay and affect both the fishing industry, the oyster industry, etc.

So that kind of activity is ongoing in the Natural History Museum, at the Smithsonian Astrophysical Observatory, and in our environmental research groups, both in Panama and in the Chesapeake Bay.

We do have educational programs associated with all of these activities. Both the Smithsonian Office of Education and the individual units that I mentioned develop curricular packages. They are put up on the web. And I say "put up on the web" if, in fact, we can get the dollars to do the kind of programming that will get them up on the web. That, in fact, is one of the requests we are giving to you this year, to make both the collection and educational material available over the web. It is certainly consistent with the Secretary's desire to move stuff out across the country into different venues.

We would like to do that in both an organized way—that is to say, a curricular package that teachers can just tie into—and also in a collections manner such that the collections can simply be put up and teachers can pull down what they would like to use, rather than necessarily to pre-digest it.

So the research activity does feed into the educational outreach. I am reminded that one often is quoted as saying that the research activity is to our educational outreach much like sin is to confession—if you do not do one, you have nothing to say in the other. [Laughter.]

Mr. REGULA. I will have to think about that one.

Mr. SMALL. One of the things that I saw that I was very excited about, when I went to the Smithsonian Astrophysical Observatory, I was on the roof with their education department, and what they have there—I mean, this is a really neat thing. There was a young, attractive scientist. There is a set of telescopes they have there. What can happen is school districts can call in, teachers can call in and say, “I want to have this block of time for my kids to get their individual shots of the moon,” and they then get hooked up right through the Internet to them, and they can, as they are writing reports on astronomy, they are plugged right in, through the Internet, to the number one astrophysical center of the world.

What they need to do is make it accessible to school systems, not just individual students.

I think, as you look at the kind of things that they are working on, the scientists all are fundamentally education oriented. And if you bring a template to them that says, “Here is the way you can get to affect many more people,” and help them so that they can package things, they will be able to do much more outreach.

Their basic thinking is they are not marketers, they are researchers, and so they have to be helped to be able to disseminate the knowledge that they have. But there are great opportunities for it.

DEATH OF TWO ZEBRAS

Mr. REGULA. Mr. Nethercutt?

Mr. NETHERCUTT. Thank you, Mr. Chairman.

Mr. Small, welcome, sir.

Mr. SMALL. Thank you.

Mr. NETHERCUTT. Ladies and gentlemen, I am glad to have you here again. I enjoyed our discussion this week with respect to your new position and your appearance before this subcommittee.

I really am enthused about the plans that you all collectively have, and you, as the Secretary, sir, are bringing to the Smithsonian. I especially like the idea of using some of the exhibits that are currently in storage to be traveling exhibits—in other words, get those artifacts and treasures, as they may be in storage in the Smithsonian system, out among the people, and especially rural communities like my own that I think so highly of. I think it would be so much appreciated. Our American Indian heritage, for example, is very strong in my part of the country.

I think those are great ideas, and I am excited to see them developed.

I want to ask a question about the Zoo and those two zebras that perished and get a sense of what happened.

I saw in my own newspaper out in Spokane, Washington, a report about these two zebras that died. There was a heat question, but there is also a question of nutrition and lack of protein, and I am not sure what else.

I am wondering how that could happen and what we have done to be sensitive about it. These are treasures, animal treasures, that we hate to lose, and it seems that it may have been prevented, but I do not know that and I thought I would see what you all had to say about it.

Mr. SMALL. We obviously have the Zoo director here, but basically, in terms of my own investigation and reading of internal matter on it, I think the press report was pretty accurate. I think you could characterize it as a certain degree of human error in the management of this process.

These zebras have normally been a pretty hearty species, but it turns out, in the case of these two, where there was a temperature drop, first of all they did not have enough body fat, and that was as a result of a diet change that had taken place by one of the people taking care of them, because they had been concerned about the animals becoming overweight. In the change in diet, they actually produced a situation where they were underweight.

Most of them are able to survive down to a little below the freezing temperature level, but in the case of these two animals there was not enough heat around and they were not strong enough, simply, to survive.

It would appear—nobody knows, since it is the blinding light of hindsight—that, had more aggressive precautions been taken in terms of the amount of heating, amount of hay bedding that they lie on, because that helps keep them able to retain heat better, and had their diet had a higher fat content, then it may well have been avoided.

So all of the measures that need to have been taken to remedy that, plus very strong words to the staff about the need to stay on top of this, have all been taken. That is a very unfortunate incident.

Mr. NETHERCUTT. Do you have enough people? Do we have enough monitoring systems? Do we have enough sensitivity about perhaps the sensitive nature of these animals in a new climate? Do you have enough to do the job?

Mr. SMALL. My understanding—the Under Secretary for Science can answer this, but my understanding is that this is one of the great zoos of the world that has a marvelous record, so this is clearly something that was deemed to be an unsatisfactory occurrence, but it is not a place where there is any lack of professionalism or dedication of resources to the safety of the animals.

I can tell you that the Zoo staff was devastated by this.

Mr. NETHERCUTT. I am sure they were.

Mr. SMALL. And their concern for the animals in their charge is just paramount, but mistakes do, unfortunately, happen from time to time.

NATIONAL MUSEUM OF THE AMERICAN INDIAN

Mr. NETHERCUTT. One quick question. We have a vote, and I do not want to take too much time. You and I talked about the National Museum of the American Indian.

Mr. SMALL. Yes.

Mr. NETHERCUTT. And we have talked about the problems that have occurred along the way.

Mr. SMALL. Yes.

Mr. NETHERCUTT. I do have some questions that I will submit to you for the record, given our shortness of time.

But can you just, in a short summary, assure the committee that the construction is proceeding on time and budget, that you do not anticipate any fall-out from the architect problems that occurred?

Mr. SMALL. Right. At this point in time we have an approved plan, we have the ground broken. We have had the ground-breaking ceremony. We are moving ahead, and I do not foresee any obstacles.

Like any other construction project, you never know what is going to happen, but I do not see any strategic or conceptual obstacles in the way.

I know there was a brouhaha over the architect. As far as I am concerned, that is behind us now and we are moving ahead with it.

Mr. NETHERCUTT. I will submit some questions for you to answer for the record.

Mr. SMALL. Right.

Mr. NETHERCUTT. Thank you, Mr. Chairman.

Mr. REGULA. I hope all of you come back after the vote, because we want to talk about the Air and Space Dulles project. Are there any of you that cannot come back that want to get a question in?

[No response.]

Mr. REGULA. We are going to have to recess. We have two votes, so it will probably be about 20 minutes or so.

The committee will recess until we finish the voting.

Mr. Moran?

PATENT OFFICE BUILDING

Mr. MORAN. Thank you, Mr. Chairman.

Let me just get on the record your perspective and response to the issue with regard to the old Patent Office Building. A number of us, as you know, have been approached by people, particularly those concerned that the Portrait Gallery was going to lose space to the benefit of the American Art Museum.

I have had the benefit of your briefing, but I think it would be useful to share it with the committee and get it on the record, if you could summarize the principal reasons why you think that the compromise made sense and should go forward at this point.

Mr. SMALL. Just by way of background, the old Patent Office Building, as it is called, is the place that has been shared by the National Portrait Gallery and the National Museum of American Art. Essentially, they have had, in round numbers, about 100,000 square feet of exhibition space that they have shared in the past,

and that space was split up, 60 percent allocated to the National Museum of American Art and to the National Portrait Gallery, 40 percent of that space.

A plan had been developed under the previous Secretary to expand the gallery space available to the public in that building by moving out the staff for offices and other functions to a new building that has been purchased just up the street from it called the "Victor Building," which allowed now for space to be freed up in the building for more exhibition space.

In evaluating how to split up the incremental space, the Secretary decided that he would give more of the new space to the American Art Museum than to the Portrait Gallery, so that the split ended up being 65 percent American Art, 35 percent Portrait Gallery, with both of them having more exhibition space than they had before, but with three-quarters of the new space being given to American Art rather than the Portrait Gallery on the basis of the concept being that American Art, as a topic, is broader than just portraiture, and that many of the pieces of American art are larger than the portrait pieces, and that the collection of American art is more than twice as large than the collection of the Portrait Gallery.

That decision he made before I came in, and, very frankly, on a broad-brush basis, it is a perfectly reasonable decision.

What I have discovered is that the real issue is that nobody goes to the building, and that, of all the buildings in the Smithsonian, here is a building that is 100,000 square feet of exhibition space. We get fewer than 400,000 people there.

If you go over next to Union Station in the basement under the Post Office, there is 22,000 square feet of exhibition space in the Postal Museum which gets 500,000 people.

Go to New York City in Lower Manhattan, where nobody in his right mind would go to a museum, and you have the National Museum of the American Indian on the second floor of the Custom House with 15,000 square feet of space, one-sixth; they get 600,000 people going to it.

So the fact is we have an issue of how is this place running. And what I am going to be doing is we are bringing into the Smithsonian a woman named Carole Neves, who was with the National Academy of Public Administration. She is going to be reporting to me as the director of policy and analysis. We are going to go to work on looking over this whole area and deciding what is the best thing we ought to do going forward with it.

PEQUOT TRIBE CONTRIBUTION

Mr. MORAN. Just very quickly, do you have a figure for how much has been contributed to the American Indian Museum from the gambling profits that the Native American community has generated?

Mr. SMALL. From the Pequot Tribe there is a \$10 million contribution that was made.

Mr. MORAN. A \$10 million pledge, right?

Mr. SMALL. Yes, pledge.

Mr. MORAN. All right, with that—

Mr. REGULA. I think we are down to eight minutes, so I think we should probably better recess for the votes. We will be back.
[Break.]

SMITHSONIAN REORGANIZATION

Mr. REGULA. Okay. We will get started and back on track here. I think, Mr. Dicks, you are up.

Mr. DICKS. Thank you.

I am very glad to see you here for your first time to testify, and I appreciate very much what you are trying to do at the Smithsonian, particularly in the leadership area.

As I understand it—and you may have touched on this in your opening remarks—you have created divisions?

Mr. SMALL. Yes.

Mr. DICKS. Why don't you tell us something about that.

Mr. SMALL. We have created five divisions.

Before this reorganization, the way the Smithsonian was organized, it was basically divided into two broad areas—one, the administrative area, headed by Under Secretary Newman, and then the other headed by a provost, which is quite similar to what you would see in a university, which had, I think, maybe 35 direct reports. There were at least 35 different departments being overseen by Dennis O'Connor, the provost.

My own feeling is that, in terms of the way that I would like to see the Smithsonian run, with a greater degree of individual accountability for specific objectives, that structure was not one that was likely to work.

So what we have done is divided the Smithsonian up into five divisions. The first is the science division, which has the functions that are basically scientifically oriented, and there will be an Under Secretary for Science, who will be Under Secretary O'Connor.

Then there is a division that has all of the various elements of the Smithsonian that relate to the American experience, to connecting Americans to the American heritage. We call that "American Museums, Programs, and National Outreach," and that is the one that Sheila Burke is coming to head up from the Kennedy School of Government at Harvard University.

A third position is fundamentally analogous, quite similar to the one that Connie Newman currently has, which is the general counsel, the chief financial officer, the chief information officer, the administrative functions related to the buildings and the security of the Smithsonian.

Then there is a fourth, which are the three museums which are international in focus, the Hirshhorn Museum, the Freer and Sackler Galleries, and the African Art Museum, which we have a position supervising, as well. I am still looking for the right person for that.

And then, finally, Smithsonian Business Ventures, which is headed by Gary Beer, who was brought in last August to the Smithsonian to run a division including the mail order activities, the gift shops, the restaurants, and the various concessions that we have.

So those are the five divisions. Each one of the division heads, if you will, will be accountable for specific results that will tie into the achievement of the missions that I have outlined.

Mr. DICKS. Are you going to do a new strategic plan?

Mr. SMALL. Yes.

Mr. DICKS. And the last one, as I understand it, was approved in 1997, but you are going to do a new one based on your reorganization?

Mr. SMALL. Definitely.

Mr. DICKS. Are there other changes that you have in mind besides those two?

Mr. SMALL. I think the changes fit into the overall mission that I have described, dramatically enhancing the ability of the Smithsonian to engage with the American public, on the one hand, through the various initiatives that I have outlined, and then the other, to focus our activities in scientific research so that we really can build a series of centers of excellence that are known throughout the world. They would all be changes that relate to achieving those dual missions.

HEALTH OF THE SMITHSONIAN

Mr. DICKS. Could you give us your general view of the health of the Smithsonian as you take over and the extent that you feel that—I assume these changes that you have already made were things that you wanted to do, but give us your general view of the health of the Smithsonian.

Mr. SMALL. I think the Smithsonian is very healthy from the standpoint of, first, having an overwhelming amount of public sentiment in both the public sector and the private sector on behalf of the American people, so as to its reason for its existence, people love the Smithsonian.

As I have talked to Members of Congress, talked to people in the private sector, talked to people who come to the museums, it has overwhelming support for it. So I think that is the first indicator of great health.

Secondly, it is completely financially sound. It has a substantial endowment of close to \$700 million. It has a small amount of debt. It meets its budget obligations every year so that there is nothing that is out of control.

Thirdly, it is enormously popular from the standpoint of what it does. I outlined before the statistics of visitation. There is no institution of America that comes close to connecting to the American people in terms of tying them into their heritage that is comparable to the Smithsonian, so it has the kind of service component that is required.

I do think, on the other hand, that there are many aspects that require improvement. As I indicated, many of its buildings are dingy, shabby, and in need of enormous amount of repair and refurbishment. Many of the systems are antiquated, archaic, and not terribly functional in terms of 21st century standards. And I think many of the exhibits are tired, old, and not compelling particularly to a young person today. There are quite a number of exhibits that are 25 or 30 years old, and, frankly, they are not attracting people,

they are not inspiring people, and they are not educating people, and so they are going to have to be changed.

So I think there are a lot of things to be done, as you would expect in an institution that is 154 years old, but they are all constructive things. They are positive things. They are things that are going to enable us to carry out our mission better. So I do not view any of it negatively.

REPROGRAMMING

Mr. DICKS. Now, you mentioned in your statement that you are going to make a submission to Congress to revise your budget for 2001.

Mr. SMALL. Yes.

Mr. DICKS. And do you have a time in which you are going to do this?

Mr. SMALL. I do not know what the statute—over the next few months, if that is the amount of time. Since this budget was prepared before I even arrived, I would like to shape it more to the priorities I have indicated, and so—

Ms. WHARTON. We will probably be reprogramming in the base.

Mr. DICKS. In the base?

Ms. WHARTON. Right.

Mr. DICKS. Okay. So, now, is your base something that is reported to the Congress, or is that done—

Ms. WHARTON. Yes.

Mr. DICKS. It is? Is it in line items?

Ms. WHARTON. Yes.

Mr. DICKS. Great. So you would have a major reprogramming that would be submitted to make the changes that the Secretary wants to make.

Mr. SMALL. I may be seeking to move more money in the direction of the national outreach campaign, so we have more money going into what we can do moving out of Washington.

Mr. DICKS. When do you think that will be done? When will this reprogramming come up? It would be before we mark up, I would hope.

Ms. WHARTON. Yes. It should be.

Mr. DICKS. April—

Ms. WHARTON. Well, I do not know when you mark up, but if it—

Mr. DICKS [continuing]. May or June, probably.

Ms. WHARTON. So I would say within a month, six weeks, we could do that.

PUBLIC AWARENESS OF SMITHSONIAN SCIENCE

Mr. DICKS. Let me ask you another question. How well aware do you think the public is of the science activities of the Smithsonian?

Mr. SMALL. None.

Mr. DICKS. And do you think more needs to be done to inform people?

Mr. SMALL. A tremendous amount, and I do not see why it should be any problem whatsoever if we have a concerted program. I have a proposal on my desk from our external affairs activities to do just that.

OUTREACH ACTIVITIES

Mr. DICKS. I may have missed this when I was not here, but tell me a little bit more about your external activities agenda.

Mr. SMALL. You mean the outreach activities?

Mr. DICKS. Yes, your outreach activities.

Mr. SMALL. I would like to see us become known as a local presence in all 50 States. And I would like to do that by putting objects—since most of the objects in the Smithsonian are stored away and invisible to the public, I would like to develop hundreds, if not thousands, of relationships with other museums and cultural institutions around the United States so they would become affiliates of the Smithsonian and display Smithsonian objects.

They can do a better job, as local institutions, and we can develop a presence and a sense among the members of the public that we are doing something not only for them in Washington but doing something for them in their communities.

There is not a person in this room who comes from another place other than Washington who does not have a local institution that could not benefit in some way by an association with the Smithsonian, and I want to build those relationships.

Mr. DICKS. How long do you think that will take to do?

Mr. SMALL. We have got 139 million objects—

Mr. DICKS. Will it take a lot of money? Is it outreach?

Mr. SMALL [continuing]. In storage, so—

Mr. DICKS. I mean, we have got the material, but—

Mr. SMALL. It will take—

Mr. DICKS [continuing]. You are going to have to get people to know what is there.

Mr. SMALL. Sure.

Mr. DICKS. And develop the relationships.

Mr. SMALL. There is a program in place already.

Mr. REGULA. If you will yield?

Mr. DICKS. Yes, I would yield.

Mr. REGULA. I think it would be a nice idea to submit something to every Member of the Congress that they could slug into a newsletter.

Mr. SMALL. Sure. As I have met with Members, I am sending things to them.

Mr. REGULA. I suspect that our own colleagues are somewhat limited in their knowledge of the institution.

Mr. SMALL. Sure. We can get out all 535 packages with no problem at all. The only problem that we are going to have is that as—what I have noticed is that, as soon as I approach or talk to an institution and say, "Would you like to do this," they say yes, and so our own issue is going to be just staffing this up and moving—

Mr. DICKS. Right.

Mr. SMALL [continuing]. The money to it to be able to service.

Mr. DICKS. You have to kind of assess what you have.

Mr. SMALL. Exactly right.

Mr. DICKS. And what you want to allow the affiliates to use.

Mr. SMALL. Right. And, not only that, but then there are conversations back and forth and they have to decide on how they are

going to ship stuff and how they are going to display stuff and how it is going to be taken care of.

Mr. DICKS. Right.

Mr. SMALL. So each one of these is a relationship.

Mr. DICKS. Yes.

Mr. SMALL. And it is going to take a lot of work.

We have right now a total of 28 of these that have been signed as agreements, and there is a whole pile in the works right now. But to build this into what I foresee, which is hundreds and hundreds and hundreds, it is going to take years to do it properly and to reorient the spending of the Smithsonian so it is more of a service organization dealing with thousands of museums around the country. It is going to be a big task. But I do not see why it is not doable.

The idea that you could have a lot of these objects just sitting in dark rooms in cases and not seen by anybody does not make any sense to me at all.

Mr. DICKS. I think that is a great idea, and I think Members of Congress would be very supportive of that. They would like to see their local museums displaying objects from the Smithsonian. I think it would be very popular.

Mr. SMALL. And every organization we have talked to says, "We would like to have Smithsonian signage here that says we are an affiliate of the Smithsonian. It will help us with our fund raising." When they go out to local donors, if they get the stamp that they are related to the Smithsonian it is helpful to them.

Mr. DICKS. Sure.

Thank you, Mr. Chairman.

Mr. REGULA. You are welcome.

NATIONAL MUSEUM OF THE AMERICAN INDIAN

I was hoping other Members would come back, but I will ask a few more questions and then we will go to General Dailey.

Last year we were told that the five-year schedule for moving the Indian collection from New York would be accelerated. Have you made any progress toward achieving this goal?

Mr. SMALL. Do you know the numbers for the move?

Mr. O'CONNOR. The numbers are, I think, 1,400 objects a week.

Mr. REGULA. You are in the process right now?

Mr. O'CONNOR. We are in the process of moving that many down each week, Mr. Chairman.

Mr. REGULA. And have all the legal difficulties associated with terminating the contract with Geddes Brecker Qualls and Cunningham, and Cardinal been resolved?

Mr. O'CONNOR. Yes, sir.

Mr. REGULA. All of that is settled now. Okay. Did you incur any significant costs during the final resolution?

Ms. NEWMAN. Well, we got money in the settlement.

Mr. REGULA. You did?

Ms. NEWMAN. Yes.

Mr. REGULA. Is the Museum of the American Indian on the Mall on schedule and within the original budget?

Mr. O'CONNOR. It might be a couple of months behind, but it is marginal.

SMITHSONIAN EDUCATION PROGRAMS

Mr. REGULA. Okay. I have a lot of questions for the record, but I wonder if Mr. Hinchey has any questions that he would like to ask of the Secretary.

Mr. HINCHEY. Thank you, Mr. Chairman.

Mr. Secretary, thank you very much for being here. It is a pleasure to listen to you. And one cannot listen to you without being excited once again about the Smithsonian and all the wonderful opportunities it offers. I am absolutely convinced that it is going to benefit enormously from your leadership, and it already has, so we are all very excited about that and looking forward to it.

It is a great institution, as you have said many, many times, and it, to me, is sort of the face of the Government or the face of Washington to most of the people around the country. One of the first things that people want to do is either go to the Capitol Building or to the Smithsonian museums. Most people just make a beeline right there. And the Air and Space Museum, of course, is the one that gets the most attention, but the other buildings, as well.

Like you—and I would say in spite of the great efforts by the chairman of this committee—I do not know how, frankly, it has been done. I am only a new member of this subcommittee. It is only my second year here. But the concentration on the backlog of maintenance that the chairman here has focused on and is trying to eliminate is a herculean effort. It really is like cleaning out the stables.

Mr. SMALL. A pretty accurate description. [Laughter.]

Mr. HINCHEY. It just sort of, you know, popped into my head. As I was saying it, I said, "It really is very apt."

In any case, it is a wonderful institution, but when you walk through some of those buildings you cannot help but get the sense of antiquity, not just from the displays, but from the buildings and the surroundings, themselves. That is not, I think, what we want to see.

I am very excited about your initiatives, the things you want us to do. I know that, under the leadership of our chairman, we are going to play a very important role in helping you to achieve the things that you want to do.

I wonder if you or someone else at the table could talk a little bit more about your outreach programs, particularly the education programs, because I know that some of the things you want to do involve education in a real hands-on way to schools across the country. I would be interested in hearing for the record some of the exciting things that are being proposed and planned with regard to education, and particularly at the elementary and secondary school levels.

Mr. SMALL. Dennis, you have been working on it. Go ahead.

Mr. O'CONNOR. Mr. Hinchey, one of the really exciting programs that we have has developed in collaboration with the National Academy of Sciences over the past five or six years, and it is a K-8 science outreach program in which there are now 32 science units, ranging from electricity to gravity to all sorts of physics and life sciences, and, in order to get the program, the school district has to attend an orientation meeting in the summer with the prin-

cial, the superintendent of education, and a corporate sponsor, who will then be able to purchase the materials that go into the science program.

Right now, we are present in about 30 percent of the school districts across the United States.

What we will now begin to do is to complement that presentation that is in the classrooms of 30 percent of the school districts together with a web presence, hopefully in about the next 18 months. So the teachers will have the magnet demonstration that will take two weeks to go through in their classrooms. They will be able to enhance that by going on the Internet.

Mr. HINCHEY. Where would one attend these meetings?

Mr. O'CONNOR. Up until about two years ago, most of them were here in Washington. Now we are doing them regionally so that the costs of getting to the meetings has been reduced markedly.

Mr. CRAMER. How are those announced?

Mr. O'CONNOR. Letters are sent out to school districts across the United States, and the responses have been brought back into the Smithsonian.

Mr. HINCHEY. And the corporate sponsor is an essential part of it because they have to provide some of the financial resources that are essential?

Mr. O'CONNOR. Exactly right, because what we are trying to do is to get this program into areas that probably are less well served.

Mr. HINCHEY. And what would be the size of the contribution that would be expected from the corporate sponsor?

Mr. O'CONNOR. I would have to get back to you on that, Mr. Hinchey. I can do that, but it really is dependent on the size of the participation of the school district. So if it is the whole school district, obviously it is more than if they are doing it with just a couple of pilot schools.

I will get that information back to you.

[The information follows:]

CORPORATE CONTRIBUTIONS TO SCHOOL DISTRICTS

Corporate contributions to school districts to improve elementary school science education in their company towns have varied. Most of the corporations the Institution has worked with have offered financial support to their local school districts for initial implementation expenses (like the initial purchase of science kits or to underwrite introductory teacher training workshops) but have required school districts to make a commitment to providing long-term budget support for science kit refurbishment and professional development for teachers.

Some examples follow:

Hewlett Packard has provided \$30,000 per district per year for 3-5 years to 21 school districts located near HP plant sites in California and Colorado.

Dow Chemical has provided \$50,000 to \$60,000 per district per year for four years to some 40 school districts located near Dow Chemical plant sites in Michigan, California, and Texas.

Bayer (formerly Miles Inc.) has provided similar support to over 30 school districts located in western Pennsylvania and Indiana.

Merck, through the Merck Institute for Science Education, is providing similar levels of support to a consortium of school districts located in northern New Jersey and eastern Pennsylvania.

Bristol Myers-Squibb is providing \$75,000 per district per year for five years to districts located in New York, eastern Pennsylvania, and northern New Jersey.

Dupont has provided sufficient funds for materials and teacher training to implement the science curriculum, called "Smithsonian Science," in all of the elementary schools in Delaware. Dupont has provided the financial support required to establish a science materials processing center to refurbish all of the science kits used throughout the state. Dupont is now moving to expand this program to provide support to school districts located near Dupont plant sites in South Carolina and Virginia.

Lucent has recently made a commitment to provide \$30,000 per district per year to improve elementary science education in nine school districts located near Lucent plant sites.

SCIENTIFIC RESEARCH

Mr. REGULA. Mr. Cramer?

Mr. CRAMER. Thank you, Mr. Chairman. And thank you for letting me barge in on your issue, but that was fascinating to me.

I want to say, as well, Mr. Small, you have got quite a chorus of supporters here, and I want to add mine to that, which is why I came back here. I appreciated your visit to my office and appreciated the update you have given me.

I want to welcome General Dailey on board, as well.

Part of my questions were going to speak towards science research in connection with NASA, and especially with your involvement in the Chandra Observatory.

Would you give me just some brief information about that?

Mr. SMALL. I think I am going to yield to the Under Secretary for Science, who is more knowledgeable than I.

I have visited the Smithsonian Astrophysical Observatory, and it is something that has been around since the turn of the century and a real center of excellence.

With the Chandra, there is a whole series of activities that relate to the design of this and fabrication of part of it, but you might want to elaborate more.

Mr. O'CONNOR. General Dailey can also elaborate on it, too, since he was at NASA at the time of the launch, which was July 23, 1999.

When Chandra was deployed, the detectors in the satellite were manufactured by the Smithsonian Astrophysical Observatory, and it is now being managed up in Cambridge.

Chandra is telling us a great deal about the origin and the fate of the cosmos, and it has a really highly-visited—I think since July there have been 25 million hits on the Chandra website, and it has some remarkable photographs.

I am not sure, Congressman, whether you were here when the Secretary presented these photographs, and so I will let him present them again, since he does it so well.

Mr. SMALL. That is, through an optical telescope, what you could see of the Cassiopeia—

Mr. O'CONNOR. Cassiopeia A is a super nova that exploded about 300 years ago. That is the remnants that are visible in the evening sky.

Mr. CRAMER. Three hundred years ago?

Mr. O'CONNOR. Three hundred years ago.

Mr. SMALL. The white spots are the light that you are seeing. This is what the Chandra tells you is really there. That is because that is detecting x-ray energy as opposed to just optical waves.

So what the Chandra is able to do now is to make visible, if you will, if you use the term "visible" and apply it to x-rays, to detect the existence of gasses and matter that heretofore have been undetectable.

Mr. HINCHEY. The second picture is actually the star exploding?
Mr. SMALL. That is the material that is there.

Mr. O'CONNOR. What you see there, sir, is the representation visually of x-ray density, high-energy x-rays emanating from what was a super nova.

Mr. SMALL. At any rate, what this is doing is it is just expanding scientific knowledge of what the universe really came from and where it is headed at a level that heretofore we did not have.

When we first started observing the heavens, it was all done optically, and people have then moved into radio images and into infrared images and then ultimately these x-ray images and detecting another source of energy, which just tells us more about what is there. Essentially, that is the start of all science, and maybe it may well be the end of it, too, at some point.

EDUCATIONAL OUTREACH

Mr. CRAMER. The K through 12 program that you were talking about, what is the name of that program?

Mr. O'CONNOR. It is the National Science Resources Center program in K-12 education. If you would like, sir, I would be happy to get material.

Mr. CRAMER. I would like some more information.

Mr. O'CONNOR. Absolutely.

Mr. CRAMER. And how many school systems participated in it.

Mr. O'CONNOR. Absolutely.

Mr. CRAMER. And some range, much like my colleague was asking, of the amount of money that corporate sponsors have to put up.

Mr. O'CONNOR. Sure.

[The information follows:]

NATIONAL SCIENCE RESOURCES CENTER LEADERSHIP AND ASSISTANCE FOR SCIENCE EDUCATION REFORM INITIATIVE

The National Science Resources Center (NSRC) launched the Leadership and Assistance for Science Education Reform (LASER) initiative in 1998 to help prepare school districts and community leaders to plan, implement and sustain effective science education reform efforts for levels K-8. Collaborating with the NRSC in this major undertaking are educators and scientists from eight regional sites, which include Alabama; South Carolina; Rhode Island; southwestern Pennsylvania; Oklahoma; Orange County, California; Washington state; and a tri-state consortium including New Jersey, eastern Pennsylvania, and southern Connecticut.

The National Science Foundation and the Smithsonian Institution are providing major support for the five-year LASER initiative. Additional support is provided by a combination of registration fees paid by participants in LASER events and contributions from industrial corporations, philanthropic foundations, and publishers. Corporate and philanthropic contributors through March 2000 include:

	<i>Dollars</i>
Bayer Foundation	30,000
Bristol-Myers Squibb Foundation	250,000
Dupont	50,000
Lucent Technologies Foundation	150,000
Merck Institute for Science Education	60,000
Pfizer Foundation	50,000
Robert Wood Johnson Foundation	150,000

	<i>Dollars</i>
Shell Oil Foundation	30,000
Carolina Biological Supply Company	150,000
Delta Education	150,000
Lab-Aids, Inc.	25,000

Current Total 1,095,000

The LASER initiative holds six week-long Strategic Planning Institutes each year to prepare leadership teams from school districts located in the LASER regions to develop five-year strategic plans for K-8 science education reform. The school district leadership teams typically include a school district superintendent, the district science coordinator, two teachers, and a scientist or engineer from a local university, industrial corporation, research lab, or museum.

Total costs incurred by the NSRC for a five-member leadership team to attend a LASER Strategic Planning Institute are approximately \$14,000 including travel and accommodation expenses. Funding raised by the NSRC underwrites approximately \$6,000 of these costs; school districts and their local sponsors are responsible for providing the remaining \$8,000 per team.

MAINTENANCE BACKLOG

Mr. CRAMER. And, Mr. Small, especially with regard to the deterioration of the buildings that you described here to the committee, and then yesterday when we were able to visit, we did not get that way overnight. Was there some neglect in the past? I mean, needless to say, but—

Mr. SMALL. What the chairman of this committee, I understand, has been hammering on for years is, "Take care of what you have. Do not build new things until you reconstruct your old things."

Mr. CRAMER. No.

Mr. SMALL. And this is something that has gone on throughout the world of institutional buildings, but with these buildings, in particular, people just were focusing more on creating new programs and doing other things than making sure that they were kept meticulously and in wonderful condition.

So now we have this tremendous backlog, which does not affect only the Smithsonian, obviously.

In the case of a museum complex, where the visceral sense that a person gets when walking in the door is just as important as the sense that they get when looking at the artwork, to have that resource basically eliminated for you is a terrible lack.

You cannot have somebody walk into something that they view as depressing and expect them to be inspired.

Mr. CRAMER. We cannot let those deteriorate much longer.

Mr. SMALL. I agree.

Mr. REGULA. We are working on it.

Mr. DICKS. What is the backlog? Would you yield? What is the backlog?

Mr. SMALL. The last calculation I saw on the Smithsonian was \$250 million, and we were getting in 1995 \$25 million, and this has been almost doubled, and then there is another 50 percent increase now.

The real issue—and I understand this is a tremendous challenge for the committee because it has the issue of allocation of resources to the committee itself—the real issue is that \$60 million cannot do it. I mean, we are not even keeping pace with it. There are orders of magnitude above that amount to restore the buildings to what they ought to be.

I have to work with the chairman on this whole very broad issue, and I think it is an issue that involves even what the committee gets, because, you know, the people with whom we compete for money are people like the Park Service. How can an American citizen knock the Park Service? I love the Park Service. The last thing I want to do is hurt them.

So I think there is a real issue as to, when you look at what the American public is dealing with directly, like parks and like museums, we have got to do a better job collectively at getting money for these things because these are the way we inspire our citizenry, this is the way you make people proud of their country. We cannot let that stuff run down.

But I am preaching to the choir here. I understand that.

Mr. REGULA. Well, we have put in a ten-year program. It is not going to get done overnight, but at least if you have a goal out there you incrementally begin to attack it.

Mr. CRAMER. It is troubling to hear the state that they are in.

Mr. REGULA. I know.

Mr. CRAMER. But it is reassuring to know that we have got to hear this some time or another, and it is about time.

Mr. SMALL. And I am going to be back at you and back at you, and I think I am ultimately going to make a pain of myself, and it is going to be frustrating, but I do not see that I have any other choice but to tell it like it is.

It is not that any of you would differ with me when you walked into the building.

Mr. DICKS. Could you yield again, just on this subject?

Mr. CRAMER. Sure.

Mr. DICKS. Could you do bonding? Is there a way to bond and do the improvements?

Mr. SMALL. You can borrow money, but that is just another way of causing—you know, then we have got to come back to you to say, "Can you give us the money to pay for it?" I mean, we can borrow the money, but then you are going to have to pay for—

Mr. DICKS. But you do not generate enough income to provide it?

Mr. SMALL. No. We generate income from our private funds, but—

Mr. DICKS. Right.

Mr. SMALL [continuing]. The biggest problem that we have in this area—and I am killing myself and going to kill myself on fund raising, but the one problem we have is that donors who want to donate to things like this say, "I do not want to do buildings, because that is the Government." And so I am not coming here saying, you know, "We need tons of money for programs."

I am saying the buildings are the problem, and that is the big nut that we cannot crack with the public, because they say, "Hey, Washington, not my home town. I love your outreach stuff. I will give you money for this, that, and the other thing. But buildings, not my cup of tea."

NATIONAL AIR AND SPACE MUSEUM DULLES CENTER

Mr. REGULA. Well, we have to move on. We have General Dailey here, who is the new director of the National Air and Space Museum.

General, you are in charge of probably the most popular museum in the world, and so we want to hear from you.

Gen. DAILEY. Thank you very much, Mr. Chairman, members of the committee.

Sir, with your permission, I would like to respectfully correct one comment that the Secretary made during his remarks, and that is that we do not have 100,000 square feet of gum on the carpet. [Laughter.]

We would have if we did not meticulously clean it.

Mr. REGULA. Well, I might tell you the general is a Marine, and if there is any gum on the carpet, it is going to disappear in a hurry. [Laughter.]

Gen. DAILEY. Thank you, sir.

Well, as has been stated, we are the most-visited museum in the world. There are other air and space museums that can rival us in terms of the size of their buildings, but none can rival us in terms of the content. There is no collection anywhere in the world that will compare with the Air and Space collection at the Smithsonian.

The problem is, we can only display 10 percent of it in the museum on the Mall, so 80 percent of our artifacts are in storage at the Garber facility in Silver Hill. That is the reason we need this new facility.

It is my pleasure today to give you an update, and I feel we have good news for the committee.

[The information follows:]



This rendering depicts what a visitor will see when entering the Dulles Center--the SR 71 Blackbird in the Aviation hanger and the nose of the Space Shuttle Enterprise visible from the Space hanger. Over 180 aircraft and 130 space-related artifacts will be exhibited in the two main hangars.

Gen. DAILEY. This would be the view that a visitor will have entering the main hall of the new facility. They will be greeted by the SR-71 Blackbird, a plan view. This is truly an awesome aircraft. By the way, this particular aircraft set the transcontinental speed record when it was delivered in its flight from California to Dulles, 68 minutes across country. It probably will not be topped for quite some time.

Mr. REGULA. We will get that on our next trip. [Laughter.]

Mr. SMALL. You could have used that the day before yesterday.

Gen. DAILEY. It is not phase three qualified for airport use, however.

If you look directly behind, this is the space hall, and we have the Enterprise Space Shuttle, the first shuttle to fly not into orbit, but was used for all of the flight quality and other testing that was necessary prior to launch.

But, looking then right or left, the sky will be filled with aircraft. This is an artist's conception, so it only has about 20 aircraft displayed. As the Secretary said, 178 aircraft will be displayed at three levels within this magnificent hall.

Mr. SMALL. Two-and-a-half football fields long by ten stories high in one room.

Mr. REGULA. You said three levels. Will there be a level underneath?

Gen. DAILEY. There will be an upper level, then a center level, and then on the deck.

Mr. SMALL. He means the levels of aircraft suspended in the air.

Mr. REGULA. Okay.

Gen. DAILEY. So they will all be hanging from this steel truss arrangement, which is the key to the design, by the way.

It really is going to—the Secretary is stealing all my lines here. [Laughter.]

I might mention that this building is 15 million cubic feet, also, which is a sizeable cooling and heating challenge for us.

Due to the generosity of the committee and your providing us with \$8 million for design, we have completed the architectural design for this complex. This drawing is based upon those drawings.

Then we had them validated through a risk analysis by an independent company, and they have recommended that we add six months to the production schedule, based upon the necessity to produce these steel trusses and also the difficulty in maintaining the labor force in contracting today because of the difficulties that they are having keeping people on the job.

Mr. REGULA. Yes. What is the roof material?

Gen. DAILEY. The material in the roof?

Mr. REGULA. Yes. What kind of a roof is it?

Gen. DAILEY. Hypalon. It is a synthetic thermal material, which is going to assist us in the heating and cooling of this structure.

There are no exotic materials in here. Everything is a proven capability.

The trusses are different, in terms of the way they are constructed, but they are not state-of-the-art, nor do we expect a risk, other than the fact that we will have to get into a queue with the manufacturers of steel products of this type, and there is a backlog

at this time. That is one of the reasons why we need to extend the time that we have to construct the facility.

Mr. CRAMER. Was that done by the architect?

Gen. DAILEY. Yes, it was.

Mr. CRAMER. So the architect, obviously, has been chosen. Was that competed?

Gen. DAILEY. Yes, it was. And these are the same architects who designed our museum on the Mall, so we are really very pleased with this.

Here is the main hall. We have the space hall in the back. Then, behind this area will be the restoration facility, which will be three times the size of the one we have at the Garber facility at the present time.

There will be an observation platform, where the visitors can actually watch the craftsmen restoring the artifacts. We believe this will be a very popular stopping point on the tour.

Probably the most important thing out here is going to be the education complex that we will have, which will consist of classroom, laboratory, office space for researchers, and the access to the archives.

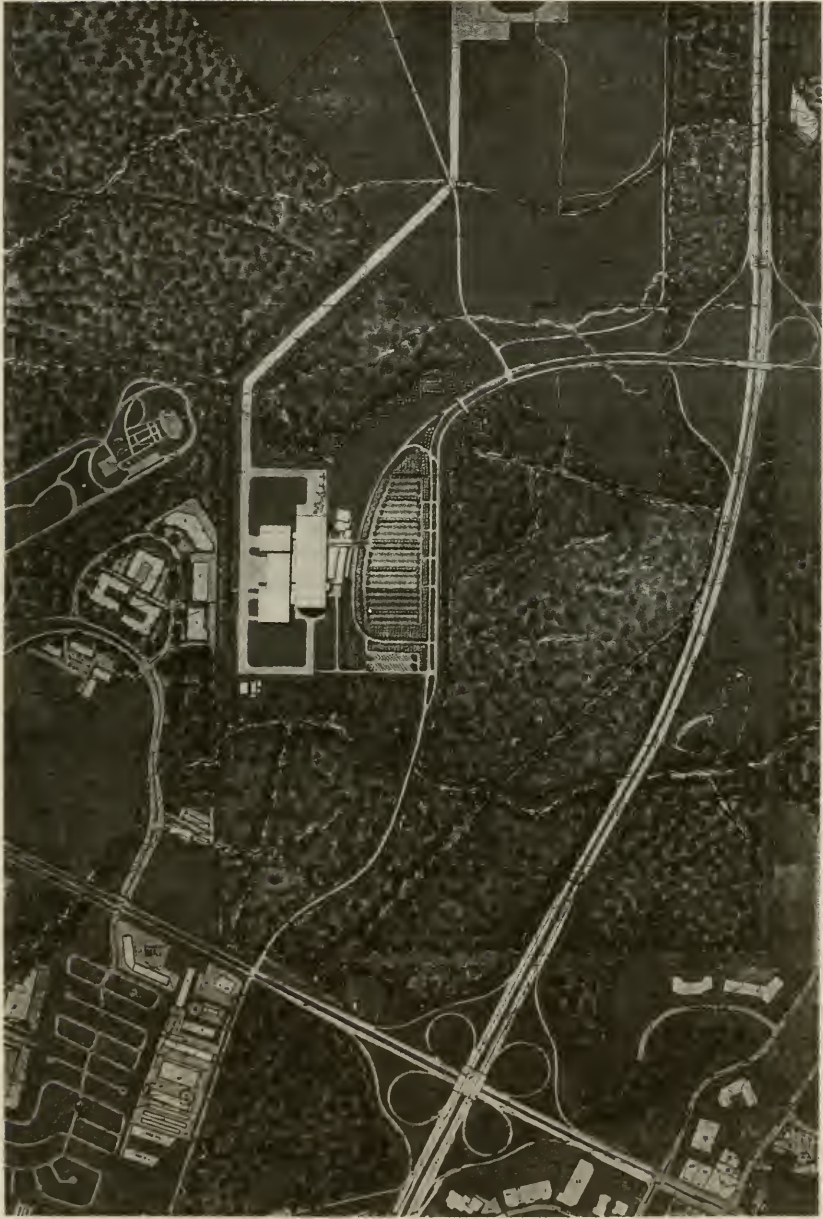
In addition, the Fairfax County school system is building a high school directly across Route 28, which will have an aviation curriculum. This provides us access, then, to the rest of the school systems in the country through the educational network. So we are looking for a tremendous improvement to our opportunity for outreach in education, which is really our reason for being.

We will have, of course, a large-format theater, restaurants, museum shop, and then a storage facility for artifacts that are awaiting restoration.

It will be 710,000 square feet when completed.

It is done in two phases. The first phase is the responsibility of the State, and that is for site preparation.

[The information follows:]



The National Air and Space Museum-Dulles Center plan includes a 2000 car parking lot, a haul road from the airport runway and an interchange off Route 28.

GEN. DAILY. Just to give you an orientation, this is the Dulles Airport complex. This is the terminal up here. When you come in and go through the security and out to the people movers, as you look out the windows, if you were looking out to the east side, you can see the area down here, the 176.5 acres that we have leased from the Airport Authority. This will be the site for our complex.

CONTRIBUTION OF THE COMMONWEALTH OF VIRGINIA

The State will commence construction next month on site preparation, which will include a construction road which will lead off of Route 50.

By the way, for orientation, this is Route 50, Route 28. This is east, north is to the top.

The Secretary told me not to make this a military brief. I was going to start with an orientation. [Laughter.]

Mr. SMALL. You follow my advice, right?

Gen. DAILEY. So far.

At this point, this is the approach end of runway 01, and this is what we call a "tow-way," which will be constructed by the State, where artifacts arriving at Dulles can be easily brought to the facility, or aircraft arriving to come to the facility.

Our agreement with Dulles Airport is we can have fly-ins four times a year, so we anticipate having aviation-type activities that we can sponsor out at this site.

They will also provide the taxiways and ramp space around the facility, the 2,000-car parking lot, and eventually—this will be the last act—this interchange on Route 28. This will be the entrance to the museum. It will be like arriving at an airport. It even looks like one when you come up in front, because you get off at what would be the departure level.

You notice here, you are actually at the second level, you are looking down at the main deck there.

We want to create the feeling that you are really coming to the Nation's Hangar. That is what this is all about. And it is going to have a display that will be unparalleled any place in the world.

They also are providing the utilities—water, electric, gas, and—

Mr. REGULA. That is the State of Virginia?

Gen. DAILEY. The State of Virginia—\$34 million in construction, \$6 million in donation to us to assist in the project.

They are on schedule with the funding for both. They have \$2 million in their 2001 budget, \$2 million in 2002, and we anticipate the final million in 2003.

DULLES CENTER NATIONAL CAMPAIGN

Now, as far as our status, we have raised \$94 million against the original \$130 million goal for the Capital Campaign. Based on this progress, the Smithsonian Board of Regents has approved a go-ahead for construction. This is a significant act, in that it has signaled the full support of the Smithsonian for this project. So we are committed, we are ready to go, and that is why we were able to tell the State that they could go ahead and proceed with their activities and we are ready to follow.

We still have a long way to go in our fund raising, but we have adequate funds to keep us moving. We have financial plans that have been developed that are ready for signature between the Secretary and the Governor of Virginia, so we are ready.

That is really the important point.

Now, two things that I would like to mention. One is that we will have a single senior staff run both facilities. We are not going to double the staff out at Dulles. The people who are out here will be those who have hands-on responsibilities for running the operation.

BUDGET REQUEST FOR DULLES CENTER

We are asking for an additional \$2.58 million this year. It is to prepare the artifacts, to provide the people and the equipment to prepare the artifacts for movement to Dulles.

The artifacts at Garber are stored. Many of them are in a disassembled state. Those that are not disassembled will have to be disassembled for the move, so it is a tremendous job.

The other thing is the people that are required to do this are not craftsmen that you can hire out of an off-the-street union. These are people who have skills that can be developed, and so time is an important factor here.

If we wait longer, adding more money will not solve the problem, because this is a time phase thing where we have two parallel processes—one, the construction of the facility, the other is the preparation of the artifacts.

The thing that has never changed in this whole plan is the opening date of 17 December 2003, the centennial celebration of the powered flight of the Wright Brothers. We are looking for this to be one of the culminations of this three-year preparation for that celebration, so it has been made clear to me by Secretary Small that this is it. If this is not opened on the 17th of December, 2003, he is going to kiss me goodbye. [Laughter.]

So I have my orders on this.

That concludes my presentation, sir. I would be glad to answer any questions.

NATIONAL AIR AND SPACE MUSEUM

Mr. REGULA. Would you want to make any comments about the Air and Space Museum, because that, too, is your portfolio and it is a very important part of the Smithsonian complex. Is there anything that you see needs to be done there or support that we need to provide?

Gen. DAILEY. I think that the biggest challenge that I see is the fund-raising requirements for this facility are putting a strain on everything else. It is our number one priority and we are addressing that, but there are other things that have to be done. It is just that we are probably not going to be able to do them at the level that we had wanted to in terms of improving some of the sites.

We have a major restoration going on, what we call the "window wall modification." All of the windows are being replaced one-third at a time. That will be finished in July of 2001. We do not want to do too many major upgrades while the roof still leaks, so it is a case of phasing it.

That is really the biggest thing—enough money to do this and to keep our activities going.

Mr. REGULA. Is your maintenance on schedule at the Air and Space Museum?

Gen. DAILEY. Yes, it is on schedule.

Mr. REGULA. We are trying to avoid this degradation happening in some of the places where it is just neglected.

Gen. DAILEY. This is not neglect. It was actually a cost-saving measure when we did this back in 1976. Instead of using glass, we used lucite. The expansion coefficient is greater than glass and it worked its way loose in these joints over the years and now it leaks substantially. We have a leak prevention program that consists of about 26 barrels that we run around with. [Laughter.]

They are actually labeled as "leak control."

Mr. REGULA. Mr. Dicks?

COST OF DULLES CENTER

Mr. DICKS. I think this looks like a tremendous project. How much more money do we have to raise?

Gen. DAILEY. The campaign goal was \$130 million, but the actual cost of this will be about \$181 million.

Mr. SMALL. The total project.

Gen. DAILEY. But we have a financial plan to borrow the difference. What we would like to do is raise all the money. Our goal is to go out there and get it all.

Mr. DICKS. Good.

Gen. DAILEY. So we need a lot of help.

Mr. DICKS. Good.

Gen. DAILEY. But there is a lot of interest.

The one thing that is most encouraging about this is that every place we go people are enthusiastic. They may not give us any money, but they help us, and they are willing to help us try to find it.

Mr. DICKS. Have you been out to the Red Barn in Seattle at Boeing Field?

Gen. DAILEY. I have. Yes, sir.

Mr. DICKS. I just wondered if you had seen that.

Gen. DAILEY. That was not on a fund-raising trip.

Mr. DICKS. No, no. I mean, I am sure there could be some collaboration. I mean, they have some things there that you might be interested in.

Gen. DAILEY. I agree. Yes, sir. And there is one thing about air and space museums all over the world—there really is a collaboration. It is the most cooperative group I have ever seen, and people even refer us to opportunities for fund raising that did not work for them but might work for us. I am really encouraged with the level of cooperation, and also the support we are getting from the Smithsonian. This commitment that we have now is the secret to us getting started. We are ready to go.

Mr. DICKS. And it will be open in December, 2003?

Gen. DAILEY. December 17, 2003. Guaranteed. [Laughter.]

Mr. DICKS. I like that.

Mr. REGULA. When the commandant of the Marine Corps tells you that, he means it. [Laughter.]

Mr. DICKS. These military guys are great, are they not?
Gen. DAILEY. We will see.

DULLES CENTER GROUNDBREAKING

Mr. DICKS. I think it looks like a very—I, of course, followed this over the years. I am glad to see that we are starting to move. And the ground-breaking is in April?

Gen. DAILEY. Yes, sir.

Mr. DICKS. Good.

Gen. DAILEY. This is a confusion factor because the State breaks ground in April. We break ground some time later. Instead of January, 2001, we are going to try to move it back to October of this year.

We are afraid if we have two ground-breakings that close together people are going to wonder what is going on, so we intend to have it during the building ground-breaking later this year. We will coordinate with all of the appropriate folks to make sure that we do this right. But we want to make this a major event.

Also, we see opportunities with the movement of all these artifacts from Maryland to Dulles. It is going to be a community activity, because we are going to be shutting down some highways while these things are going, and so it will be highly publicized. We believe we can really make it something that everybody wants to participate in. There are going to be some wonderful things coming out of hiding here on their way to being displayed.

Mr. DICKS. Thank you.

PERCENT OF AIR AND SPACE ARTIFACTS ON DISPLAY

Mr. REGULA. Mr. Hinchey?

Mr. HINCHEY. Thank you very much, Mr. Chairman.

This is always a fascinating experience to be here, and we want it to go on and on, I think, in a way.

I know that at any one time you are only able to display a fraction of the artifacts that are in the possession of the Smithsonian. How large a fraction is that, or how small is it?

Mr. SMALL. Less than 2 percent are on display.

Mr. HINCHEY. Less than 2 percent?

Mr. SMALL. Yes. In the case of this collection, this is the largest collection of aircraft and spacecraft in the world. The current museum, which is the most significant museum in the world in terms of visitation, has about 10 percent of the total collection. After we have this facility in place, we will still have probably 40 percent of the collection in storage.

Gen. DAILEY. Actually, this will get us up to 80 percent, because we have 10 percent on loan.

Mr. SMALL. That is the other thing. Right.

Gen. DAILEY. There are 72 aircraft.

Mr. REGULA. Do you mean 10 percent of what you have is loaned to somebody else?

Mr. SMALL. Other people.

Gen. DAILEY. Presently.

Mr. REGULA. Like Wright Patterson, for example.

Mr. SMALL. Exactly.

Gen. DAILEY. The Saturn Five rockets that are at Huntsville, Kennedy, and Johnson, for example.

NATIONAL MUSEUM OF THE AMERICAN INDIAN

Mr. HINCHEY. Just on another subject, if I may, Mr. Chairman?
Mr. REGULA. Sure.

Mr. HINCHEY. The Museum of the American Indian is of particular interest to me, since most of the materials were in a warehouse in the Bronx for a long, long time.

Mr. SMALL. Most still are.

Mr. HINCHEY. Most still are. And they will be on display at this wonderful new building that you are putting up. Can you tell us a little bit about that? When do you expect it to be open, and what will be housed there?

Mr. SMALL. We are hoping to get that museum opened by the end of 2002, I think is the date. What you are going to have housed there is the greatest ethnographic collection ever assembled in the history of the world. There are 800,000 items in the total collection. A good part of it will be in the storage facility that we have out in Suitland, Maryland. But this is the definitive collection in the entire world of Native American artifacts from the North and South American regions of the world. There is no collection that is comparable.

I should also add that we have substantial other Indian collections in the Smithsonian in the National Museum of Natural History, so this is, I think, a fabulous opportunity for the world, and particularly the United States, to see the kind of creativity and artistry of our Native American population.

More importantly, I think this is going to produce a moment of what you could call "reconciliation" with the Indian issue, as a whole. We are going to have displayed the work of not just a group of museum professionals, but 550 tribes that have been coordinated by Rick West, who is the director of the museum, over a ten-year period to tell their story.

On the assumption that this will be successful—and I am confident it will—I think this is going to be an historic moment for the United States to have this issue dealt with out in public, with students and others able to visit and see it, and to do so in a way that will allow the Nation not to come to peace with its past, but to be reconciled with its past.

Mr. HINCHEY. I think it is a great thing, and I really congratulate the Board of Regents of the Smithsonian for recognizing the importance of doing it, and doing it in what seems to be a very appropriate and very lovely way. We will be able to judge that, of course, much better when the building is up and open, but it seems to me, on the basis of what I know about it so far, that this is being handled very, very well. I think it is something that will be a great addition to the Smithsonian's collection and its portrayal of itself before the world.

I think it says a great deal about us, as Americans, about our country and about our future, and so I am, once again, very proud of you and what you are doing and congratulate you and wish you the best on it.

DULLES CENTER ARTIFACTS

Mr. REGULA. I have a question for General Dailey.

I notice in the drawing you have what I would consider to be private, small aircraft. Do you anticipate this will include more than just military and space aircraft?

Gen. DAILEY. Sure. It definitely will. When some of these artifacts come out of Garber, it is going to be a total spectrum of aircraft, from very early to very late.

Mr. REGULA. So you will have commercial jets that made the transition?

Mr. SMALL. We will have the original 707.

Gen. DAILEY. It is actually the prototype.

Mr. REGULA. And you do not have my favorite, which is the P-38, but I know there is one out at Garber.

Gen. DAILEY. We do have a P-38, sir. We will be hanging that one.

Mr. REGULA. I have seen it. Okay. Well, one last item.

NATIONAL ZOOLOGICAL PARK

This is Dr. Robinson's last hearing.

How long have you been the director of the National Zoo?

Mr. ROBINSON. Sixteen years, 36 with the Smithsonian.

Mr. REGULA. Well, were you the first director when we took it over from the city?

Mr. ROBINSON. No.

Mr. REGULA. I do not know when that was.

Mr. ROBINSON. That was 40 years ago, or more.

Mr. REGULA. Okay. Well, you have done a great job up there.

How many visitors do you get?

Mr. ROBINSON. Between 2.75 and 3.25 million people a year.

Mr. REGULA. I would be curious. How many come from outside this greater Washington area? Do you get a lot of visitors that come from distances?

Mr. ROBINSON. Yes. We get school buses and tourist buses. We get enormous numbers of buses. People coming to Washington on tours all come out to the Zoo, to the extent that they cause chaos on Rock Creek Parkway and they are backed up all the way down to Rock Creek Park from the Zoo. The local inhabitants think of us as a benign nuisance as a consequence of that. We really do get a lot of people from outside.

Mr. REGULA. Pandas? Are you going to get some more?

Mr. ROBINSON. We are in the middle of very delicate negotiations on that issue, and all the prospects look very good, indeed.

Mr. REGULA. I wonder if that will be tied to WTO.

Mr. DICKS. Think there might be linkage?

Mr. REGULA. They are only indigenous to China; is that correct?

Mr. ROBINSON. That is right, the giant panda. The red panda, which I would express a heretical view, is more attractive-looking than the giant panda, is found further afield. But we should not put that in the record; otherwise, I will be shot when I return.
[Laughter.]

Mr. REGULA. For my colleagues, you might say how we are progressing on the concept of putting some agriculture exhibits—i.e., a cow or pig or other farm animals.

Mr. ROBINSON. The meeting of a design committee for the farm exhibit was yesterday, appropriately, and we should have the concept design by early April, so things are going very well, indeed, there.

Mr. REGULA. There are a number of these around the world, are there not? I know Copenhagen has a mixed zoo.

Mr. ROBINSON. Yes. And one of the finest is in Amsterdam, where, of course, the old Dutch masters drew or painted enormously rich archives of what domestic animals looked like 400 or 500 years ago, and they have got a great exhibit there. So it will be enormously attractive.

A cartoon appeared in which it showed a family entering the zoo, and they were saying, "We can go and see the elephants and the rhinos," but they got in the farm exhibit and never got to see the rest of the zoo. So I think you will be impressed.

Mr. REGULA. Any questions?

[No response.]

Mr. ROBINSON. Could I make a remark?

Mr. REGULA. Of course.

Mr. ROBINSON. A parting remark.

Mr. REGULA. Absolutely.

Mr. ROBINSON. I think my life has been enormously enriched by being with the Smithsonian, and also by being, from a very early age, associated with all these wonderful animals. I hope you will nourish both of those things, the world of the Smithsonian and the world of animals and plants.

And I would like to give you my tie. [Applause.]

Mr. ROBINSON. And I would suggest to the General, as an aircraftsman first class, that he needs to put in amongst all those airplanes the first flying objects which occurred on this planet, which were dragonflies 500 million years before the Wright Brothers. [Laughter.]

Mr. REGULA. I cannot resist a story.

We have a three-year-old grandson, and my wife was telling him that only birds could fly, you had to have wings to fly. And she said she saw him thinking, and he said, "Grandma, reindeer fly." [Laughter.]

Mr. ROBINSON. Very good.

Mr. REGULA. I would give you my tie, except this was a Christmas present from my wife, and I am afraid I would be in deep trouble.

We are into a tie exchange. I gave one to Mr. Kingston that had frogs on it the other day. Now it is your turn, fellows. [Laughter.]

Well, we want to thank you for wonderful service to the Zoo. I think it is really one of the outstanding zoos in the world today. I urge all of my visitors to go there. It is a great asset of the Smithsonian. That is thanks to the wonderful leadership you have provided over the past 16 years.

We certainly wish you well in your future endeavors.

[Applause.]

Mr. REGULA. On that high note, we will adjourn.

[Additional questions for the record follow:]

ADDITIONAL COMMITTEE QUESTIONS

REORGANIZATION PLANS

Question 1: You have just instituted a reorganization plan for the Institution. Can you briefly describe your principal reasons for the change and what short and long term goals you hope to achieve?

Answer: My principal reason for the change is my belief that the Institution must and can have greater impact on the lives of those we serve by enriching their experience of the Smithsonian. While maintaining the respect and admiration of those already familiar with us, we also must win new audiences by taking the Institution to them.

The reorganization plan consists of four elements: public engagement; focused scientific research; management excellence; and financial strength. Obviously, these elements are inter-related. I anticipate parallel and integrated activity in all areas, continuously grounded in the highest levels of integrity and scholarship.

Over the long term, we will establish priorities for science based on our strengths in collections and on our record of research in key disciplines. We also will apply up-to-date management principles and ensure accountability for the funds we raise and spend. Finally, we will improve facilities and exhibitions on the Mall and use varied means to reach into communities throughout America.

DULLES CENTER

Question 2: The fiscal year 2001 budget includes \$2,580,000 to prepare artifacts for relocation from the Garber facility to the Dulles Center in Northern Virginia. Last year you estimated the total cost associated with this activity to be approximately \$12.2 million. Is this still an accurate figure?

Answer: Yes, NASM is still estimating the relocation costs to be approximately \$12 million.

Question 3: You also indicated that you were committing \$1.2 million from ISTE A funding for this effort. Did you make those funds available for the relocation project?

Answer: Yes, the \$1.2 million from ISTE A funding dedicated to the Dulles Center project are to prepare the collection for relocation from the Garber facility to the Dulles Center. The funds support five temporary staff and needed supplies to prepare for relocation.

Question 4: Can you provide the Committee with greater details on this request in priority of importance?

Answer: It was after a rigorous prioritization that the National Air and Space Museum determined that \$2.58 million was needed in FY 2001 to achieve our goal of opening the Dulles Center on December 17, 2003, the Centennial of Powered Flight. The prioritization focuses on the three long lead-time programs: staff and equipment needed to prepare the collection for transfer to the Dulles Center; exhibit development and construction; and educational program development. The request includes:

- 19 staff to support collections preparation, educational outreach program development, and exhibit design and production (\$1.16 million); and
- supplies to support collections preparation, design and construction of exhibit cases, and related expenses (\$1.42 million).

When considering the Dulles Center planning horizon, collections preparation programs are our first priority (\$1.14 million), followed by exhibits design and construction (\$1.36 million), and education (\$.08 million). Unless exhibits cases and related displays are designed and constructed, the Dulles Center will not be able to display artifacts for visitors. Using the Institution's successful National Science Resources Center model, a two- to three-year development cycle is required to establish an effective science and technology education program.

The FY 2001 request recognizes fiscal constraints while also ensuring that the National Air and Space Museum will open the Dulles Center to the American people with a program that supports our mission to memorialize the national development of aviation and space flight.

Question 5: What is the status of the private fund raising efforts?

Answer: Currently, fund raising for the Dulles Center stands at approximately \$94 million in cash, pledges, and in-kind donations towards a goal of \$130 million. In addition, the Commonwealth of Virginia included \$2.0 million in its FY 2001 and FY 2002 budgets to support the Center and is providing \$34 million in infrastructure that includes sitework, roads, and utilities. Fairfax County Virginia provided \$300,000 in FY 2000 and has budgeted an additional \$300,000 in FY 2001 for the Center.

Question 6: What is the projected annual operating cost for this new facility?

Answer: The current estimate for operating the new Dulles Center facility is approximately \$15 million per year. Of the \$15 million, \$12.7 million is for new direct operating costs and \$2.3 million is for the transfer of restoration activities from the Garber facility to the Dulles Center.

Question 7: Will the artifacts currently housed at the Garber facility be transferred to Dulles?

Answer: Approximately 81% of the artifacts currently housed at the Garber facility will be transferred to the Dulles Center.

Question 8: The Commonwealth of Virginia has made several large commitments to this project. What is the status of the infrastructure work and other commitments?

Answer: The Commonwealth of Virginia remains a strong supporter of the Dulles Center, having pledged \$34 million in infrastructure support and \$6 million as a gift. The Commonwealth's FY 2001 and 2002 budgets include \$2.0 million each year in direct support. The Commonwealth is scheduled to begin the first phase of infrastructure construction in late April 2000. The Plan of Finance between the Commonwealth and the Smithsonian has been reviewed and is ready for signature.

RESEARCH

Question 9: You have stated that this new structure will permit the Institution to be crisper about what the goals are in scientific research. What do you mean by this statement?

Answer: The Institution will articulate more clearly its scientific goals by focusing on specific areas of science in which it can make substantial contributions, particularly in the fields of astrophysics, tropical biology, and earth sciences. Resources will be focused on identified areas of excellence and five-year objectives will be set. Performance towards objectives will be assessed.

Question 10: What process do you intend to use to determine what research is not significant and warrants termination?

Answer: The Institution will conduct a study of the last decade of scientific activity using respected, disinterested third parties to assess the value of the work in the scientific units. The results of the study should determine where the Institution truly excels; from that, scientific research will be focused on no more than ten centers of excellence. Those activities that are determined to be outside our chosen areas of specialization will be phased out over time in an appropriate way.

Question 11: Other research agencies under this bill's jurisdiction, such as the U.S. Geological Survey, use the National Academy of Sciences to review and make recommendations on research. Do you intend to seek their input on which research is valuable?

Answer: The Institution does not receive input specifically from the National Academy of Sciences, but calls on the members of the Academy for help in formulating research programs. In fields that are not well represented in the Academy, such as systematics, the Institution also seeks input from experts at major museums and other institutions.

Question 12: The Smithsonian collection exceeds 140 million objects. Why is it important to collect all of these artifacts?

Answer: Of the Smithsonian's 141 million artifacts, the National Museum of Natural History (NMNH) has more than 123 million cataloged specimens and artifacts. Some specimens are one of a kind; others are multiple samples of the same organism, mineral, or cultural object. Each specimen, however, contains unique information that can tell us about a biological, physical, or cultural pattern or process. The color or size variation of dozens of specimens of birds collected over the geographic range of a single type allows us to say that two quite different-looking birds actually belong to the same species. Multiple specimens of the same volcanic rock from different parts of the world have chemical variations that tell us about the evolution of the earth's crust. Hundreds of clay pots provide clues about differences among ancient cultural groups and even individual artists.

Multiple samples are so useful in research and education that museum people often collect several of a kind as a matter of course; sometimes they collect large series for a particular research need. Specimens are not only used for descriptive purposes, but large quantities of the same artifacts are necessary so that researchers can support their interpretations with statistically significant findings. The Institution does not keep everything and also is selective about what is cataloged for the permanent collection. Regular decisions are made to reject or deaccession collections that unnecessarily duplicate existing objects or specimens judged to be of low priority or poor quality.

Question 13: The National Zoological Park has recently completed its educational mission and vision document for the next five years. Can you give the Committee a brief summary of its principal goals and how you hope to achieve them?

Answer: The goals of the National Zoological Park Education Program are (1) to increase audience understanding and appreciation of life on earth by providing science-based information and illuminating our connections with the natural world and (2) to inspire participation in conservation.

The Zoo expects to achieve this vision in three important ways. The first is to ensure that every visitor to the National Zoo has the opportunity to directly interact with zoo staff and/or zoo volunteers in both formal and informal programs. Second, the Zoo will continue to include research in all of its exhibits and programs. Finally, through its web sites, the Zoo will continue to make available to teachers and students, its photographic collection, curricula, activity guides, major graphics, and relevant research.

Question 14: Can you describe the Smithsonian's involvement in the Space Shuttle Columbia's latest space mission launched in July 1999?

Answer: Smithsonian scientists based at the Smithsonian Astrophysical Observatory (SAO) in Cambridge, Massachusetts initiated study of the telescope mission now known as Chandra through a proposal to NASA in 1976. From that time through the launch of the Space Shuttle Columbia on July 23, 1999, SAO scientists, engineers, and managers worked closely with NASA, industry, and the science community to design, build, test, calibrate, and generally prepare the Chandra Observatory for its research mission. SAO is now responsible under contract to NASA for the operation of the Science and Control Centers for the Chandra X-ray Observatory. The Chandra X-ray Center assists scientists world-wide in planning Chandra observations, collection of the scientific data, and analysis of those data. Through the Operations Control Center, SAO staff are responsible for monitoring the health and safety of Chandra and for sending commands to the satellite and receiving data sent back to Earth (using NASA's Deep Space Network for the actual communications). SAO was selected via an open competition for the science center responsibilities in 1991, and NASA amended that contract to include the operations in 1996. SAO is the first non-NASA center to be responsible for operating a large spacecraft carrying out a civilian science mission.

SAO scientists conduct science research programs and are responsible for oversight of Chandra's High Resolution Camera, designed and built by them, and of the Chandra telescope, whose guiding designer-scientist also is at SAO. They were selected competitively for these roles in the mid-1980's. Other scientists at SAO are carrying out research projects selected through a general peer review in 1998, and are preparing proposals for an upcoming peer review for Year 2 of the mission. Sixty-five percent (eighty percent after the first two years) of Chandra's observing time is reserved for the general astronomical community based on competitive peer review of proposals. The Observatory is expected to operate in space for at least five years.

Question 15: What types of educational and outreach programs are available through the Smithsonian's Astrophysical Observatory in Massachusetts?

Answer: Education and outreach programs are made available through two departments at the Smithsonian Astrophysical Observatory. The first is the Science Education Department, which works with teachers, administrators, scientists, and other educational researchers across the country. The department's mission is to improve both the research on and practice of science education in elementary and secondary schools within the United States. The intent is to create systems of learning

that provide students with both a better understanding of scientific principles and a lasting affinity for science. With funding from organizations like the National Science Foundation, Annenberg Foundation, and National Air and Space Administration, education goals are met by concentrating efforts in six major areas:

Curriculum Development - Early research has indicated that a major impediment to learning science is children's preconceptions about the way that life and the universe work. The SAO curriculum attempts to use these preconceptions as a springboard to learning rather than a roadblock preventing it. For instance, children are asked to theorize the outcome of an experiment before learning the correct answer. The teacher then guides them into experiments that will help test those theories, again, without revealing the outcomes. In this way, students are given a set of skills that allows them to explore, challenge, refute, and revise their assumptions while learning scientific process and principles. Currently, a number of major school systems throughout the country, including Atlanta and Philadelphia, use the curriculum.

Teacher Workshops - Teacher workshops are an essential ingredient in all of the SAO projects. Typically, during the summer, groups of teachers come from all over the country to help us with the design and implementation of projects and products. This provides a better product based on experience, and trains the teachers to use the curriculum and other products such as on-line telescopes and software.

Award-winning Television Programming and Production - In the last fifteen years, SAO has produced numerous television programs on topics within the field of science education. A current project involves the programming and some production for the Annenberg/CPB Channel. The A/CPB Channel is free, available 24 hours/day, 7 days/week, and reaches 35,000 schools and 22 million households. It delivers educational programming for schools, colleges, and communities. Although it has a broad viewership, the A/CPB Channel has a special focus on teacher professional development.

Award-winning Educational Software - SAO developed software for use with its other curricular materials. These tools integrate the mystery of science with its mechanisms and allow high school students to learn college-level concepts. For instance, SAO is developing software that will allow students to design and test bridges, taking into account factors like gravity, load-bearing, and different building materials. Similarly, nearing completion is "Virtual Spectroscope," software that will allow students to display and graph spectra, something that could not ordinarily be done until college because expensive spectrosopes are not available to most high school students.

Science Museum Exhibits - SAO recently began work on a science exhibit that explores current astronomical understanding of the universe and relates it to different historical and cultural perspectives. The exhibit, which will travel to as many as twelve different science museums across the country, will be very interactive and structured to allow data collection on what people learn while at the exhibit so that future exhibits may be designed to deliver more educational impact. Although the exhibit will be geared to the educational level of children, it will also be designed to engage adults learning about science.

On-line Tools for Scientific Inquiry - SAO is expanding its MicroObservatory Net, a free astronomical tool for people who are part of our network. SAO has telescopes in Massachusetts, Arizona, Hawaii, and Australia linked to the Internet that will take pictures requested by teachers and students by remote control through a World Wide Web interface. The students are able to perform

observations and conduct research that was not economically feasible before the creation of this network. Currently, SAO receives requests for and takes about 5,000 images per month.

The second SAO department involved in educational outreach is the Public Affairs Department. Its activities include:

Observatory Nights for the Public - SAO offers free "Observatory Nights for the Public" on the third Thursday of every month. These programs feature nontechnical lectures on current topics in astronomy by scientific staff members or associates, followed by films and, weather permitting, telescopic observing from the roof of the Observatory's facility in Cambridge, MA. Twice a year, in the spring and in the fall, special "Children's Nights" are offered, with lectures and other activities geared to the interests and educational levels of 6- to 12-year-olds. In addition, SAO co-sponsors an annual series of free public lectures on current topics in astronomy at the Museum of Science in Boston. Approximately 200 persons attend each lecture.

At SAO's Whipple Observatory in Amado, AZ, free "Public Star Parties," featuring lectures, demonstrations, and telescopic observing, are offered quarterly for the residents of Arizona's Santa Cruz Valley, with special outreach efforts made to attract the largely Hispanic population in the Nogales, Arizona-Mexico area. Attendance averages about 400 people per event.

The Whipple Observatory Visitors Center - Exhibits at the Whipple Observatory's Visitors Center are prepared with bilingual main titles and a full-text "Guide to the Exhibits" in Spanish is available without charge to guests. Special weekend programs, conducted by bilingual guides and featuring presentations in Spanish, are given during the summer months and attract 200 to 250 people per day. A series of Saturday workshops for teachers is offered during the academic year to address the special needs of the largely Hispanic and rural local school system.

Undergraduate Research Internships - With support from the National Science Foundation, SAO sponsors Undergraduate Research Internships each summer for approximately 12 college students who conduct research in astronomy, astrophysics, and space sciences with SAO scholars serving as mentors.

Free Publications - *Space for Women: Perspectives on Careers in Science* is a free booklet designed to encourage young women to consider careers in astronomy, geophysics, and the space sciences. Produced by the Observatory's Women's Program Committee and drawing on the experiences of SAO staff and associates, the booklet now is in its third edition, with some 26,000 copies having been distributed to students, teachers, and parents since its first publication in 1994.

Other informational brochures on general topics in astronomy, such as *Comets*, and *Meteors and Meteorites*, as well as lists of recommended reading for both adults and children, are produced by the SAO Public Affairs Office for free distribution. Several thousand are given away each year at various public events, such as Astronomy Day or the Arizona Star Parties; another 1,500 are sent in response to mail, telephone, and email requests from students and teachers around the country.

Lectures - The "Adventurous Women Lecture Series" is presented at SAO for the benefit of Observatory staff and associates, as well as for the general public. The lectures by women of unusual achievement, primarily in science, are offered two or three times a year and attract audiences of 150 people.

The SAO Public Affairs Office coordinates an informal Speakers Bureau that sends SAO staff members into the greater Boston community to speak before educational, cultural, and civic groups on topics in astronomy and astrophysics. An estimated 2,000 to 3,000 people, primarily students, are reached each year by this effort.

The Internet - The Harvard-Smithsonian Center for Astrophysics (CfA) web site, which was recently redesigned to improve its accessibility for users with sight impairments as well as those with limited Internet capabilities, serves as not only a major outreach vehicle for SAO people and projects, but also as the prime link to almost every major astronomical database, popular and technical, in the world. As an entry site for several space experiments, as well as for the international clearinghouse for comet and asteroid information, the CfA site registers more than 130,000 hits per day, with some 66,000 daily for the Chandra X-ray Observatory alone.

Question 16: The National Museum of Natural History has more in the collection than plants and animals. What type of research occurs with the other parts of the museum?

Answer: Just a few examples of research carried out at NMNH that are not dependent on plant and animal collections include the Global Volcanism Program, the world's authority on volcanic activity that has affected our planet during the last 10,000 years. Researchers pursue projects independently and in collaboration with colleagues worldwide. A notable research collaboration has been with the U.S. Geological Survey, the Federal Aviation Administration, and other federal agencies through an Interagency Working Group to formulate a national plan to prevent commercial aircraft from encountering volcanic ash clouds that can clog jet engines and cause them to fail.

During the summer of 1999, mosquito-spread West Nile arboviral encephalitis, a disease not previously reported in the United States, caused seven deaths and severe illness in many others in New York State. The virus was identified using software developed by a scientist working at the Laboratory of Systematics at the National Museum of Natural History.

The Museum has conducted long-term monitoring of ocean temperature changes and their effect on the all-important coral reef ecosystems at the Institution's marine labs at Ft. Pierce, FL, and Carrie Bow Cay, Belize. This research has contributed to the knowledge of causal factors for coral bleaching and the direct impact on the species that these systems support.

Question 17: Does the Smithsonian cooperate with other Federal agencies in order to help them carry out their mission?

Answer: Yes. The Smithsonian cooperates with many Federal agencies including: the National Academy of Sciences; the departments of Commerce, Defense, Energy, and Agriculture; the National Institutes of Health; the U.S. Agency for International Development; the National Aeronautics and Space Administration; the National Science Foundation; and the Environmental Protection Agency.

Question 18: Is there a practical application for some of the research that is being done at the Smithsonian?

Answer: One example of the practical application of research relates to emerging viruses, the stuff of science fiction films, and the dramatic threat they pose. Annual influenza epidemics are less likely to inspire science fiction, but are no less challenging to human health. Understanding the origin, evolution, and transmission of viruses is crucial to combating them. Basic biodiversity research at

NMNH provides key tools for this effort. One is a computer software package for determining genetic relationships developed by Dr. David Swofford of the NMNH Laboratory of Molecular Systematics. The software was used in tracing the origin of the West Nile virus that caused an encephalitis outbreak in the New York City area last summer, resulting in seven deaths. The software was also used recently in predicting the evolution of human influenza A virus, pointing the way to better vaccines.

Solar ultraviolet radiation (UVB) can have harmful impact on living organisms, causing sunburn and skin cancer in humans, and also damaging DNA in other species. UVB impacting the Earth's surface has increased as human activities have reduced ozone in the stratosphere, especially in polar regions. The Smithsonian Environmental Research Center (SERC) has developed new instruments for monitoring change in UVB, and SERC maintains the world's longest continuous documentation of change in UVB intensity, with the most complete long-term records for Maryland and Hawaii. SERC also provides new methods for determining impacts of UVB on planktonic organisms in the ocean. SERC researchers show that increased UVB is having harmful effects on marine algae, especially at high latitudes in the Northern Hemisphere and in the Southern Ocean. This research indicates that UVB may be changing the base of food webs in the oceans.

Basic research on submarine explosive volcanism, conducted in collaboration with Japanese colleagues, has enabled NMNH scientist Richard Fiske to participate in the discovery of a very large (possibly multi-billion dollar) deposit of gold-and-silver-rich polymetallic sulfides in the caldera of a sea floor volcano about 400 km south of Tokyo, Japan. This discovery has been reported in SCIENCE, and the Japanese will drill the deposit this summer (at an ocean depth of 1200-1300 m) to further assess what might turn out to be a major economic discovery.

The natural product taxol, a powerful drug used to fight ovarian and breast cancer, comes from the bark of the Pacific Yew, *Taxus brevifolia*. It takes three trees to provide enough taxol for one cancer patient, so the harvesting of large amounts of taxol was a major barrier to developing this useful drug. Understanding of the evolutionary relationships (systematics) of the Pacific Yew and its close relatives led scientists to investigate the European Yew, *Taxus baccata*. This species has enough taxol in a small quantity of leaves to produce the drug at lower cost, with no harm to the tree itself. Without information on the evolutionary relationships of these Yew trees, it might have taken years and a lot of testing to identify which of the many yew species has large quantities of taxol.

SERC's long term research on coastal watersheds has shown the importance of maintaining streamside forests as a mechanism to filter harmful nutrient discharges into estuaries like the Chesapeake Bay. Acting on this research, the States of Maryland, Virginia, and Pennsylvania have established regulatory guidelines for maintaining stream buffer zones.

NMNH's Rich Vari is collaborating on a revisionary study of the Prochilodontidae. These fishes are the most important group in the commercial and artisanal freshwater fisheries of South America. The group is the subject of an extensive fisheries literature and is artificially bred, but much of the information is flawed because of pervasive misidentifications. The Food and Agriculture Organization of the United Nations is introducing Prochilodontids in other parts of the world to provide an additional protein source for local peoples. This study should resolve the problem of species identity for future researchers, thereby providing a solid base for management of the fisheries of these important species.

Question 19: Last year you mentioned the Smithsonian's research on invasive species which come into our waters in the ballast of tankers. What progress has been made in these studies?

Answer: Last fall the Smithsonian Environmental Research Center (SERC) hosted an international workshop for the Global Invasive Species Program and brought together management representatives from 15 countries as part of an ongoing effort to address the world-wide impact of invasive species. Accordingly, a short statement about our analysis of ballast water exchange on commercial ships was an important specific component of SERC's program.

Mid-ocean exchange is currently the only economically feasible method of reducing the risk of biological invasions due to release of alien marine species in ballast water from commercial shipping. However, until recently, almost no rigorous scientific data had been available to assess the efficacy of this management technique. SERC researchers have conducted the world's most extensive quantitative and experimental studies of ballast water, including ballast water exchange. In cooperation with the shipping industry, SERC scientists have conducted experiments on the high seas aboard bulk carrier cargo ships transporting coal between Europe/Mediterranean Sea and the Chesapeake Bay, Alaskan oil tankers in the North Pacific, and U.S. Naval war ships of the North Atlantic. These studies indicate that ballast water exchange is indeed effective at reducing the abundance of invasive coastal plankton released into U.S. ports, but does not eliminate all risk.

SERC's scientific information is being used as the basis for future legislation that will regulate the release of ballast water in US ports.

Question 20: I know you are raising money to build new exhibition space at Dulles. I am curious to know if research occurs at NASM and if so what kind?

Answer: Research is an integral part of the activities of the National Air and Space Museum. In the curatorial ranks, the Museum has expertise in the history of technology, history of aviation, and the science of planetary studies and remote sensing. Behind the scenes, researchers are engaged in scholarship ranging from the history of rocketry to the origin and fate of water on Mars. It is this mix of history, technology and scientific work that allows NASM to restore aircraft and present exhibits and public programs that appeal to a wide range of the public. The results of this work also finds its way to various audiences through popular and scholarly books and publications in professional journals.

The Center for Earth and Planetary Studies, NASM, compares remote sensing images of earth to remote sensing images of Mars. Comparing known elements of the Earth, based on ground studies, and the remote sensing images of these known features with the images received from Mars, permits more accurate assessment of planetary features.

INFORMATION TECHNOLOGY AND COLLECTION ACCESS

Question 21: The request includes \$3 million for a new Information Technology and Collections Access program. In previous budgets the request was for digitization of the collections alone. Can you provide a more detailed description, in priority order with costs, of how these funds will be used?

Answer: The \$3 million is a fraction of what the Smithsonian will ultimately spend to bring its information technology infrastructure up to a minimum standard for the 21st century.

After our new Under Secretary for Finance and Administration is in place (to be announced in April), we will initiate an immediate search for a Chief Information Officer whose job it will be to pull together all information technology initiatives for the entire Smithsonian and weave them into a cohesive strategic plan.

No matter what the shape of the final plan, to be successful with initiatives such as the push to expand access to Smithsonian collections to affiliated museums around the country, for school systems seeking connections to digitized images of our national historical and cultural treasures, for scientists working on research requiring a window of the largest assemblage of biological specimens in the world, and for information being relayed back to earth from the Chandra X-ray telescope, managed by the Smithsonian Astrophysical Observatory, the basic groundwork for modernization of information technology at the Smithsonian must be put in place.

COMMUNICATIONS AND EDUCATION PROGRAMS

Question 22: There are several programs within the Smithsonian dealing with communications and educational programs. Can you briefly describe the activities of the National Science Resources Center, the Center for Education and Museum Studies and the Office of Fellowship and Grants?

Answer:

National Science Resources Center (NSRC) – Originally established as a joint effort by the Smithsonian Institution and the National Academy of Sciences, NSRC's mandate is to improve the teaching of science in the nation's schools. To this end, NSRC designs and develops curriculum materials and hands-on science kits for use in classrooms; creates publications and disseminates information about exemplary science instruction and curriculum materials; and administers teacher training, leadership development, and technical assistance programs for school districts in every region of the nation. Since 1989, NSRC has worked with 396 science instruction teams representing 546 U.S. school districts that enroll seven million K-8 students, approximately 25 percent of the nation's K-8 student population. The 38-member advisory board includes leaders from the corporate world, research institutions, and schools and universities.

Smithsonian Center for Education and Museum Studies (SCEMS) - The mission of the Smithsonian Center for Education and Museum Studies is to adapt the knowledge and expertise at the Smithsonian to educational uses throughout the nation and serve as a gateway to the Institution's educational resources. Through research, publishing, and staff development programs for the educational and museum communities, the Center promotes the use of museums by teachers and schools. For the education community, the Center provides local and national programs that include two magnet schools in the District of Columbia, an annual Smithsonian open house for the region's educators, leadership training workshops, and technical assistance to support museum-school collaborations. The Center maintains two web-sites that reach the nation's schools and museums. In FY 1999, the Center reached one quarter of a million educators through its workshops and technical training as well as through its web-sites and publications. The latter include "Smithsonian in Your Classroom" lesson plans and guides to Smithsonian educational resources. For the museum community, the Center provides workshops in museum management and fellowships for museum professionals throughout the nation. The Center also coordinates internship services at the Smithsonian that in FY 1999 involved 700 interns.

Office of Fellowships and Grants (OFG) - OFG manages Institution-wide fellowship programs and administers all stipend-supported academic appointments. It also manages Trust-funded programs that support research by Smithsonian scholars. Visiting students and scholars enrich the Smithsonian research community in all disciplines, while at the same time utilizing the unique resources available at the Smithsonian. In fiscal year 1999, 736 appointments were offered to individuals who worked in every Smithsonian museum and research institute. Some programs, such as the Latino Fellowship Program, the Minority Internship Program, and the Native American Awards Program are designed to increase the participation of under represented groups in Smithsonian research activities. The programs managed by OFG, such as the Scholarly Studies Program and the Seidell endowment, are competitive, peer-reviewed programs designed to provide support to scholarly Smithsonian staff to conduct research of the highest quality. OFG also publishes annually, in hard copy and electronically, Smithsonian Opportunities for Research and Study, the Institution's only comprehensive guide to internship and fellowship opportunities and to research activities and research staff in the museums and research institutes.

Question 23: The Committee notes that there is no programmatic increase for the Smithsonian Institution Traveling Exhibition Services (SITES). How many traveling exhibits are planned this year and what is the outside demand for this activity?

Answer: In FY 2000 SITES expects to circulate approximately 40 different exhibitions to some 220 communities across the nation. These exhibits, four of which will be circulated in multiple copies, will be featured in museums of every type and size, and in libraries, historical societies, science centers, community centers, municipal buildings, mass transit terminals, planetariums, zoos, and aquariums. In addition, SITES expects to provide 2,000 schools with easy-to-install poster panel exhibitions. Plans currently are underway to expand the number of Smithsonian exhibitions that travel every year to all fifty states.

The demand for SITES exhibitions is extraordinarily high. Annually the organization receives more than 1,000 requests for traveling exhibitions from the Smithsonian. While SITES is the largest traveling exhibit service in the world, the volume of its program offerings represents a fraction of the total number of cultural and educational institutions that seek to host its exhibitions.

Question 24: As part of your emphasis on outreach activities, do you have plans to increase this activity or rely more heavily on the affiliation program?

Answer: SITES and the Smithsonian's newer Affiliations program complement one another. Both have the same goal: to deepen the Smithsonian's connections with the American people, by sharing with the nation the collections and program resources of the Institution. Affiliations provide organizations and institutions across the country opportunities to develop formal, long-term associations with the Smithsonian. As part of these associations, affiliates may take advantage of a wide variety of Smithsonian resources, including borrowing artifacts on a long term loan basis, presenting traveling exhibitions, hosting public programs with Smithsonian curators, and participating in museum training seminars and consultations. SITES exhibitions are among the resources that enable affiliates to maintain a vital Smithsonian presence in their own communities. Currently, plans are underway to increase the activities of both Affiliations and SITES.

OUTREACH – AFFILIATIONS PROGRAM

Question 25: It has been several years since the Smithsonian has instituted a new policy of loaning some of its 140 million objects to private museums around the nation. How many objects have been loaned to date?

Answer: Outgoing loans initiated during 1998 included 2,045 transactions and 250,306 objects and specimens. Forty-eight percent of outgoing loans initiated were for study, forty-six percent for identification, three percent for exhibition, and three percent for other purposes. The Affiliations program has loaned approximately 700 objects to date. The total number of active loans as of September 30, 1998 exceeded 1.4 million objects and specimens.

Question 26: How many requests are made each year from private institutions?

Answer: Since the inception of the Affiliations program in 1996, the number of serious inquiries into the program has been steadily and dramatically increasing. Currently, Smithsonian Affiliations receives an average of 650 inquiries each year for information on the program. Affiliations staff field inquiries from museums (both public and private), cultural centers, universities, and congressional offices.

Question 27: What is the process for considering these requests and who makes the final decision?

Answer: Initially, non-profit educational and cultural organizations whose missions complement or parallel that of the Smithsonian usually meet informally with the Affiliations staff and museum representatives to explore possibilities. Any subsequent proposal package undergoes review by that staff, as well as the Office of Sponsored Projects and the Office of General Counsel.

The decision to proceed with a proposal then rests with the director of Smithsonian Affiliations upon counsel of the above mentioned offices and the Office of the Secretary. If approved, the proposing organization engages in discussions with appropriate museums and offices to develop the scope, time lines, and budgets for specific undertakings. Because full implementation of an affiliation agreement requires the loan of artifacts from Smithsonian collections, final decisions rest with the curators and museum directors responsible for those collections.

Question 28: How do you deal with the liability issue and what costs are involved?

Answer: Affiliating museums are not branches of the Smithsonian Institution; their governance, staff, and identity are their own. As for the artifacts on loan, the Smithsonian requires that the borrowing museum carry an all-risk, wall-to-wall insurance policy covering the artifacts while on loan. Fair market values are used to assess the total premium.

Question 29: Once an object is on loan, is there a system for periodic inspections by Smithsonian staff?

Answer: As part of the loan agreements for the artifacts, the Smithsonian reserves the right to request a site inspection and/or condition reports and photographs of the artifacts while on loan. For long-term loans of multiple-year duration, Smithsonian museums typically request a condition report once a year and a site inspection once every 1-3 years.

Prior to the loan of the artifacts, the Smithsonian museums require the borrower to complete a facilities report (as adopted by the American Association of Museums) which is used to assess the borrower's capability to reasonably care for artifacts on loan. In some instances, appropriate Smithsonian staff conduct a physical site inspection of the borrower's facility prior to loaning artifacts. Occasionally, Smithsonian staff is required to assist in physically installing an artifact at the borrowing museum's location.

VICTOR BUILDING

Question 30: Last year the Smithsonian purchased the Victor Building in downtown Washington. What was the final financial arrangement made to purchase the building and service the debt?

Answer: Last year the Institution contracted to purchase the Victor Building and has not yet consummated the purchase. Closing on the building will be on or about April 15, 2000. The purchase of the building will be financed entirely with debt mostly through the sale of tax-exempt bonds. The debt will be serviced by a combination of fundraising, revenues from retail space and parking, and trust funds.

Question 31: The original proposal to the Committee was that no Federal funds would be needed to purchase, equip or operate the Victor building. Just prior to the purchase, the Committee agreed to language proposed by the Smithsonian that would allow the use of Federal appropriations to operate the Victor Building that were designated for current leased space that would not be needed in the future because occupants would be housed in the new building, or lease payments for temporary swing space needed for the next three years due to major reconstruction of the Patent Building. What are the current rent costs associated with space that will be housed in the new Victor Building? Please provide the current lease price, square footage and lease terms.

Answer: The language Congress adopted in P.L. 106-113 permits the Smithsonian to use federal appropriations designated for lease or rent payments for long term or swing space as rent payable to the Smithsonian and deposited in the Institution's general trust fund account. A portion of the employees moving into the Victor Building will come from space which is currently leased and the remaining people will move from the Old Patent Office Building where the Smithsonian does not pay rent. The current rent associated with the Smithsonian employees moving out of leased space is \$5.82 million and they occupy approximately 178,000 rentable square feet. The rent for this space averages \$32.70 per square foot.

Question 32: What are the current lease costs and terms for the swing space associated with the remodeling of the Patent Building?

Answer: In FY 2000, \$1.7 million was appropriated for the central rent account to provide swing space for staff and contents of the National Museum of American Art and the National Portrait Gallery during major capital renewal. The FY 2001 request includes \$575,000 for the annualization of leased swing space for the occupants of the Patent Office Building. All of the occupants and some of the collections now occupying the Patent Office Building will be relocated to the Victor Building. We are continuing to evaluate storage costs and comparative costs of moving Patent Office Building conservation laboratory space to the Victor Building or elsewhere.

Question 33: The Committee's interpretation of this language is that only the Federal funds associated with current rent for space that will no longer be needed, and rent for swing space for the next three years while the Patent Building is being renovated may be used to operate or equip the new building. Do we have agreement on this issue?

Answer: As stated above, the language Congress adopted in P.L. 106-113 permits the Smithsonian to use federal appropriations designated for lease or rent payments for long term or swing space as rent payable to the Smithsonian and deposited in the Institution's general trust fund account. We now expect to need rent for swing space for at least four years. Also, during the period of time that the Patent Office Building is undergoing renovation, resources normally used to support and secure the Patent Office Building will be allocated to the Victor Building.

NATIONAL MUSEUM OF THE AMERICAN INDIAN

Question 34: There is a \$8,695,000 increase proposed for the National Museum of the American Indian support center and museum. Should the entire amount not be available due to allocation restrictions, can you describe the most essential elements of this request in priority order?

Answer: The National Museum of the American Indian has had two priority goals for the past two budget cycles – preparing for the opening of the National Museum on the Mall and relocating the collection from the Bronx to our new facility at the Cultural Resources Center (CRC) at Suitland, MD. The FY 2001 request reflects these emphases and adds the final increases to make the CRC fully operative in support of these goals and of NMAI's mission.

Therefore, the first priority is the facility, technology, and library/community services components of the CRC operations request (13 FTE, \$809,000). These increases fully staff building operations and invest in systems to organize and extend NMAI's informational resources to the public. The next priority is preparing the opening installations and programs of the Mall Museum, totaling 14 FTE and \$6.2 million. However, it is possible to defer if necessary until FY 2002 the requests for film production (\$850,000) and for education, visitor services, resource center, and performance/media (5 FTE and \$331,000). These items would be essential to provide in FY 2002 to meet plans for initial building and public operations. Remaining requests support critical preparations and contracting needed in FY 2001 to keep Mall Museum development on schedule.

Simultaneously, NMAI must continue the move of collections from New York to the Cultural Resources Center in Suitland, MD, and therefore requests the full increase for this need (\$1.1 million). Delay of the move will draw out the continuing expense of sustaining the aging facility in the Bronx and maintain operational and security staff. Delay will also continue risk of harm to collections quartered in compressed and inaccessible conditions and increase the costs of providing collection-based services from two different locations. However, to the extent necessary, we would subordinate the collections move to the preparation of Mall opening installations and programs.

Finally, after meeting the technology and facility services needs of CRC, keeping the mall development and opening on schedule, and advancing the collections move toward its five-year completion target, NMAI would complete cultural resources staffing of the CRC including photography, curatorial, research and conservation programs.

Question 35: Last year you expressed the hope that the five year schedule for moving the collection from New York could be accelerated. What progress has been made toward achieving this goal?

Answer: We are pleased to report the relocation of 35,000 items since we began the collections move last June. It has been a learning experience and we have had to make many adjustments as we turned from planning to reality. Key steps have included staffing, installing shelving in Suitland, and equipping the staging and processing areas necessary to achieve maximum flow at each end of the move. In addition to accommodating contractor-related startup delays, the move schedule has had to be adjusted for two special projects: 1) acquiring and relocating the Indian Arts and Crafts Board (IACB) collection (c. 7500 items) from the Department of the Interior, and, 2) the need to move first the collections needed for Mall Museum exhibition planning. The IACB move will be completed by May and the exhibits priority items by October. With these projects behind us we intend by the end of the year to achieve both a higher volume and predictable pace to the processing of remaining collections in the Bronx. We will be adding contractor support as well, which will speed the process so that we will be on schedule for the five-year move plan. Based on what we have learned first hand of the realities of processing this vast collection and the impact of demands for loans and exhibition planning, we cannot predict at this time that we will be able to accelerate the schedule.

Question 36: Have all legal difficulties associated with the termination of the contract with Geddes Brecher Qualls and Cunningham (GBQC) and lead architect Douglas J. Cardinal been resolved?

Answer: Yes. GBQC filed suit in the United States Court of Federal Claims on April 23, 1998, seeking, among other things, \$2 million in damages for the alleged wrongful termination of the contract. On September 27, 1999, the court dismissed the case with prejudice, as a result of the settlement of all claims between GBQC and the Smithsonian. Because Mr. Cardinal was a subcontractor to GBQC, he and his firm, Douglas J. Cardinal Architects, Ltd., were not parties to the litigation or its settlement. To the extent that Mr. Cardinal has any remaining claims arising from his performance for GBQC under the contract, any legal recourse would be against GBQC, not the Smithsonian.

Question 37: Did the Smithsonian Institution incur any significant costs during final resolution?

Answer: No. On the contrary, as a result of the settlement, GBQC paid the Smithsonian \$453,593.03, which represented the entire proceeds available under GBQC's applicable insurance policy less a reserve for potential claims by its subcontractors. GBQC had previously provided the Department of Justice financial information demonstrating that the insurance proceeds were the only assets available to satisfy the Smithsonian's potential counterclaims, e.g., excess reprourement costs. In addition, GBQC assigned to the Smithsonian a significant percentage of the proceeds from any claims, or counterclaims, for damages it may eventually assert against Mr. Cardinal.

Question 38: Is the National Museum of the American Indian Mall Museum on schedule and within the original budget?

Answer: The cost estimate for the project (planning, design and construction) is \$142 million, up from an estimate of \$110 million. The Smithsonian plans to dedicate the new Museum in December 2002. Construction of the building is expected to be complete in September 2003, and the public opening will follow shortly thereafter.

Question 39: Several years ago the Committee asked for the projected operations budgets for the National Museum of the American Indian Suitland facility as well as the Mall Museum. What is the latest estimate for their annual operation?

Answer: When the Cultural Resources Center is fully operational the NMAI operating costs will be \$8.5 million for that facility. The full NMAI operating budget for the Mall Museum is expected to be \$12.7 million. In addition, the Smithsonian Institution will incur security and maintenance costs for these two facilities.

BUSINESS VENTURES

Question 40: What is the status of the Smithsonian's efforts to develop new strategies for small business ventures?

Answer: Smithsonian Business Ventures is a newly formed division encompassing Smithsonian Magazine, museum stores, gift catalog, and concessions. Business Ventures also includes all Institution-wide licensing and media enterprises.

Since arriving in August 1999 as the new Chief Executive Officer of Business Ventures, Gary Beer has focused on the core businesses of the Institution to ensure that they are financially and operationally on solid ground. Reorganization of the business units for increased productivity is already underway, with a new chief financial officer and general merchant for retail having come on board this past January.

The recent opening of the new National Air & Space Museum store inaugurates a long-term plan to create state-of-the-art facilities and new merchandising strategies to capture more visitors and extend the museum experience. All museum stores and restaurant facilities are being analyzed to maximize productivity and capital plans are being developed. With the new National Museum of the American Indian and Dulles Center, Business Ventures will open more than 22,000 square feet of new retail space.

Initiatives are also underway to develop new products and services to grow the businesses and help extend the mission of the Institution. Two major market studies are underway to develop business plans for e-commerce and determine growth potential of the Smithsonian Magazine. Business Ventures is expected to complete a long-range strategic business plan for existing and new businesses this summer.

FUTURE EXPANSIONS

Question 41: Aside from the three new National Museum of the American Indian museums and research facilities, the Dulles Center and the purchase of the Victor Building, does the Smithsonian have any plans for new museums or major expansions in the next several years?

Answer: No new major expansions or new museums in addition to those cited above are planned for the next several years.

Question 42: Is it the intention of the Smithsonian to present any request of this kind in a formal budget request prior to any planning funds being expended or private funds or commitments being made?

Answer: If an expansion of a facility or new museum is planned, Smithsonian will consult the Subcommittee before design or construction commitments are made.

FISCAL YEAR 2001

Question 43: Your fiscal year 2001 budget contains a \$24,900,000 increase. If funds are not available to fully fund your request, what would be your three highest priorities? Please distinguish between the salaries and expenses increase for uncontrollables and the programmatic requests.

Answer: Of the items included in the FY 2001 request, the following represent the three highest priorities in the Salaries and Expenses account: mandatory increases for salary and related costs, utilities, postage and communications, and rental space, a net increase of \$13,445,000; the funds required to maintain schedules and prepare for the openings of the National Museum of the American Indian Museum on the Mall and the Dulles Center of the National Air and Space Museum, totaling \$11,275,000; and funds required to allow for increased access to Smithsonian objects, experience, and scholarship, \$3,000,000.

Question 44: There is a request for \$1,629,000 for rental increases. Of this amount, \$1,463,000 is for the central rent account. Please break this amount down to specific buildings or space and confirm that these are existing, signed rental contracts.

Answer: The \$1,463,000 increase for the central rent account includes

• NMAA/NPG Relocation	\$ 575,000
• L'Enfant Plaza	\$ 532,000
• 1111 North Capitol Street	\$ 202,000
• Aerospace Building	\$ 50,000
• Fullerton	\$ 46,000
• Avenue of the Americas	\$ 20,000
• Indiana Avenue	\$ 20,000
• 3700 North Capitol Street	\$ 6,000
• National Underground Storage	\$ 5,000
• Lamont Street	\$ 5,000
• EPL Archives	<u>\$ 2,000</u>
Total	\$1,463,000

These are existing, signed rental contracts.

Question 45: A part of this amount, \$888,000 is requested for a "projected inflationary" increase. What does this mean?

Answer: This terminology refers to estimates for annual escalator clauses in current lease agreements, projected increases in operating expenses and real estate taxes associated with existing leases, and projected increases when renewing existing contracts.

Question 46: Provide a breakdown of the assumptions and bases for the \$1,247,000 increase for communications.

Answer: The increase of \$1,247,000 for communications will support

- SINET maintenance, upgrading and network improvements (\$440,000)
- replacement of Mall voice mail system (\$366,000)
- inflation of 3% (\$293,000)
- communications costs for new facilities (\$148,000)

Question 47: The budget mentions problems with the chiller plant and attempts to contract with either the General Services Administration or a major energy provider in the area to serve the needs of certain mall museums and buildings. Do you have an increase included in this budget to deal with this problem?

Answer: There is no request for an increase to fund the chiller plant in this budget.

ISTEA

Question 48: The ISTEA bill included an authorization for \$5 million to be made available for three years for use by the Smithsonian Institution. How were those funds expended?

Answer: The bill, passed in 1997, authorizes \$1 million annually to the Smithsonian Institution for six years, FY 1998 through FY 2003, for transportation-related exhibitions, artifacts acquisition and conservation, research and outreach programs.

In FY 1998, \$607,929 was used to move the Jupiter Railroad engine from the Arts and Industries Building to the National Museum of American History (NMAH) and at the National Air and Space Museum (NASM) to (a) update the twenty-two-year-old Air Transportation Hall, (b) replace audio-visual equipment in the Sea-Air Gallery, and (c) purchase equipment to prepare artifacts for the Dulles Center.

In FY 1999 the Institution used \$1,166,070 for exhibit implementation at the Air Transportation Hall at NASM (\$633,247) and for design study, the Jupiter move hall reinstallation, and temporary improvements at Road Hall and Maritime Hall at NMAH (\$532,823).

In FY 2000, funds are being used to continue support of NASM's Dulles Center preparation and to continue to work on the Air Transportation Hall. At NMAH, funds will supplement the cost of completing the "America On The Move" exhibition.

In future years, these funds will be used to complete refurbishment of the Air Transportation Hall at NASM and to prepare artifacts for their relocation to NASM's Dulles Center.

ENTRANCE FEES

Question 49: Do you have a position on collecting entrance fees at all or some of the museums or research facilities?

Answer: I concur with the views adopted by the Board of Regents of the Smithsonian that were submitted to the Chairmen of the House and Senate Appropriations Committees in 1996 as part of a broad study of the subject. In communicating its findings to the Congress, the Board of Regents recommended that a fee not be imposed because:

- the Smithsonian occupies an essential part of a unique historical and cultural landscape in the Nation's Capital that includes national monuments, shrines, repositories, and related institutions that are places of pilgrimage for Americans and free of charge to the public;
- the Institution is perceived as the embodiment of the Nation and its history and as *the* place where people can experience their history and culture, and it ought to be as accessible as possible to everyone; and
- the Smithsonian is only just beginning to explore other avenues of untapped sources of philanthropic and commercial funding, therefore it is premature to consider the imposition of admission fees.

The 1996 study did point out, however, that certain types of exhibitions may warrant imposition of a fee. An example is a special "blockbuster" exhibition such as *Dinamation*, which debuted at the Smithsonian in 1990. For exhibitions of this nature, charging fees is more easily rationalized because of the often significant costs of mounting such a show.

REPAIR, RESTORATION AND ALTERATIONS

Question 50: The Repair and Restoration budget contains \$10 million for various projects at the National Zoological Park and the Front Royal facility. The project descriptions include serious structural and electric utility deficiencies and obsolete fire alarms. Is this amount adequate to address the most critical health and safety problems?

Answer: This amount is not sufficient to address all of the health and safety problems, but it is sufficient to address the most critical problems in an organized approach without closing significant exhibits. The requested amount includes emergency and contingency funding to address unexpected life-support system failures.

Question 51: At this rate, when will the most serious backlog problems be addressed?

Answer: If R&R funding levels remain at \$10 million during the next five years:

- Design of central utility improvements at Rock Creek will be complete and phased construction will start. Construction of this work will be complete within 8-10 years. Additional funding would allow early completion of this work.
- Design and construction of improvements to fire alarm and suppression systems will be coordinated with central utility improvements and will be complete within 10 years.
- The failing Australia Building will be replaced when the new Panda Exhibit and NZP Education Center are built.
- Road and bridge repairs will be complete within five years.
- Concept designs with final budget development for the Bear and Elephant exhibits will be complete within five years.
- Central utility (high voltage distribution system and spring water distribution system) and fire alarm and suppression system improvements at Front Royal will be complete within five years.

Question 52: Does the current situation pose any threat to the public or the animals?

Answer: We believe that the risk of utility failure and building failure is minimal, that the risk is being responsibly managed through 24-hour monitoring, and that the public and animals are not threatened in any significant way. However, we remain concerned about the condition of our water and electrical utility systems. If these systems fail before we have the opportunity to fully address them, then the safety of the public or animals will be at risk. Also, our current bear, elephant, rhinoceros, hippopotamus, and giraffe facilities need to be renovated to allow safer and easier animal management and keeper intervention. Older existing fire detection and suppression systems need to be brought up to standard.

CONSTRUCTION

Question 53: The major capital repairs budget projects a \$60 million outyear need at the National Zoological Park and Front Royal facility. Given the tremendous need, particularly for critical backlog projects, is it prudent to spend \$1 million on a new water exhibit at the Rock Creek facility?

Answer: The Zoo certainly needs money to repair and renovate existing exhibits. Additionally, the facilities at the National Zoological Park are aging and will require constant work. At the same time the NZP must maintain the vitality and competitiveness of its public programs. Museums and art galleries can renew and modernize exhibits without the need for new construction. Zoos, on the other hand, need to keep up with state-of-the-art technology, new animal care advances, and to attract visitors by means of new construction. The Bronx Zoo, for example, has just completed a new Gorilla Exhibit at an estimated cost of \$48 million.

However, as renovation and restoration of some facilities and system occurs, other facilities and systems will continue to age. The water exhibit repairs and revitalizes an existing portion of the park that has been closed to the public for many years; it provides improved wheelchair access to the Amazonia Exhibit, and it tells an important conservation story to the visitors in an exciting way. If the water exhibit were not built, significant funds would still be required to repair the existing lower duck ponds and improve wheelchair access to Amazonia. Building the water exhibit leverages these resources and allows the project to achieve multiple goals.

Question 54: The budget includes a \$2 million increase to initiate construction of the new SAO facility in Hilo, Hawaii and states that the Academia Sinica's Institute of Astronomy and Astrophysics will provide funding for the design work. Has this work been completed? If not, when do you expect the work to be completed?

Answer: The contract for preliminary design of the SAO Submillimeter Array Base Facility Building to be constructed in the Hilo Science Park in Hilo, Hawaii, was awarded in November 1999. Conceptual design will be completed by the end of April 2000, and will include civil engineering and geotechnical studies of the site, and a preliminary cost analysis. The full architectural design for the building will be undertaken following appropriate consultation with the House and Senate Appropriations Committees. We would expect to complete the design work six months after obtaining the Committees' approval to proceed. This full design will also be funded by Taiwan's Academia Sinica's Institute of Astronomy and Astrophysics.

Question 55: Will this organization have space in the new building? If so, what is the planned arrangement?

Answer: The Academia Sinica's Institute of Astronomy and Astrophysics (ASIAA) will share space in the new building with SAO. The ASIAA will occupy about 15% of the building, reflecting their relative contribution to the telescope project. SAO will have 30 staff in the building, and ASIAA will have about six.

QUESTIONS FROM REPRESENTATIVE NORMAN DICKS

Question 56: I think both the public and this Committee appreciate the need for strong leadership at the Smithsonian. At the same time there could be concern if there was the impression that actions were being taken unilaterally. Two weeks after your installation you put in place a major reorganization. Now, less than two months after your arrival, your statement indicates that you as Secretary have formulated “mission statements that will set the course of the Smithsonian over the coming decade.” Was there a public debate and approval process for either of these decisions?

Answer: Although I have only been Secretary for two months, the Smithsonian has been on my mind since last September when I was chosen as Secretary. Beginning then, I immersed myself in Institutional history and talked with more than a hundred people in and out of the Smithsonian about their perspectives, perceptions of need, possibilities, and relationships with the Government, with audiences, and with other educational institutions, such as museums, libraries, universities, and research facilities. Extensive consultation with the Board of Regents and with Members of Congress also has been a hallmark of recent months.

While I have repeatedly stressed my commitment to the high levels of research and scholarship for which the Institution has its well-deserved and honorable reputation, there will be an increasing focus on dissemination, using the variety of methods now available to us. As the plans and activities to carry out the Institution’s mission and accomplish its goals proceed, we will continue to be guided by the Regents and by ongoing consultation and feedback from the public, our many public partners across the country, and other appropriate sources.

Question 57: More generally, could you tell us what sort of external advisory and internal approval processes are in place under your leadership for making significant changes in policy at the Smithsonian?

Answer: I will continue consultation with the Board of Regents, as well as other Smithsonian boards and advisory commissions already in place, and with Members of Congress. In addition, I am assembling an internal leadership group that includes many who have been at the Institution and are familiar with its traditions, along with new people who bring ideas from elsewhere. I will make certain that each invigorates the other, and that we take from both what is best for the Smithsonian.

Question 58: In your statement, you specifically mention the initiation of a major study of the Institution’s science programs in order to better chart where this aspect of the Smithsonian should go in the future. How will you go about making a determination as to whether a particular area of science should be part of the Smithsonian’s portfolio or whether that function should be assigned to other government agencies or to the traditional university-based research enterprise?

Answer: As stated earlier, the Institution will conduct a study of the last decade of scientific activity using respected, disinterested third parties to assess the value of the work going on in all the scientific units. In addition, regular reviews are conducted by the National Museum of Natural History and the Smithsonian Astrophysical Observatory. These reviews, conducted by scientists outside of the Smithsonian, are very useful in helping the units align their resources in areas where substantial scientific contributions can be made. The process of periodic evaluation attempts to align the Institution’s historical expertise with emerging areas of importance; for example, biodiversity and large scale ecosystem research.

Question 59: Are the costs associated with the lending of items to a museum under the Affiliates program paid by the Smithsonian or the requesting institution?

Answer: The affiliating museum pays the costs associated with borrowing the artifacts. These costs include, but are not limited to, insurance, packing and shipping, appraisals, photography, conservation treatment, staff time, and copyright clearances. Depending upon the artifact, there may also be costs associated with its security requirements and installation into an exhibit.

Question 60: Mr. Small, this subcommittee has previously been told that the full cost of building the Dulles complex is \$173 million, which will be raised privately. We understand this includes the largest single gift in the history of the Smithsonian. Is this budget estimate still accurate and how is the fundraising effort going?

Answer: The current estimated construction costs for the building still stands at approximately \$173 million. This includes the Dulles Center's design, construction and construction management. The \$60 million donation by Stephen F. Udvar-Hazy to the Center represents the largest single cash donation ever made to the Smithsonian. Fund raising for the Dulles Center stands at approximately \$94 million in cash, pledges and in-kind donations, towards a goal of \$130 million. In addition, the Commonwealth of Virginia included \$2.0 million in its FY 2001 and FY 2002 budgets in support of the Center and is providing \$34 million in infrastructure support including sitework, roads, and utilities. Fairfax County Virginia provided \$300,000 in FY 2000 and has budgeted an additional \$300,000 in FY 2001 in support of the Center.

Question 61: Mr. Small, whenever this subcommittee reviews your budget, we are always impressed with the tremendous size of the collections and range of programs under the Smithsonian's portfolio. There are few institutions in this country about which American's have more pride. At the same time we sometimes wonder about the Institution becoming overextended and diverted from its core tasks. As you undertake your strategic review, is this a question which will be overtly addressed?

Answer: I believe that the goals I have set out for the Institution will help to focus the many diverse activities of the Smithsonian in a coherent manner, with emphasis on those activities that will best serve to fulfill the Institution's mission over the next decade. Decisions will be made based on the priorities articulated, and all parts of the Institution will be held responsible and accountable for achieving the goals we have agreed on.

QUESTIONS FROM REPRESENTATIVE GEORGE NETHERCUTT

NATIONAL MUSEUM OF THE AMERICAN INDIAN

Question 62: What is the total estimated budget to complete the museum?

Answer: The current cost estimate for planning, design and construction of the National Museum of the American Indian Mall Museum is \$142 million.

Question 63: What is the increase and to what are those costs attributable?

Answer: The current cost of the construction represents an increase of about \$32 million more than originally estimated in the early 1990s. The cost increase reflects additional design costs of \$7.4 million due to restart and related to termination of the original architects, schedule acceleration to regain lost time, redesign to correct deficiencies in inherited documents, additional consultants to analyze specific issues, and additional presentations to review boards. The approximately \$24.6 million increase in construction costs is due to the complexity of executing the curvilinear design and exterior skin construction, a required increase in building height and basement floor area to correct headroom deficiencies and minimize differential settlement problems with the site, and an increased contingency requirement to cover the complex nature of the building.

Question 64: Will the Smithsonian Institution be seeking additional Federal funding?

Answer: The Institution plans to raise the additional \$32 million required to complete the building.

Question 65: What is the status of private fundraising efforts?

Answer: The National Museum of the American Indian completed the initial fund raising campaign for the non-federal portion of project costs in September 1996, when gifts and pledges totaling one-third of the original cost estimate were received.

Question 66: How much has been raised or pledged?

Answer: The Museum has received \$36.7 million in gifts and pledges.

Question 67: Where will the Smithsonian Institution look for additional funds?

Answer: The Museum began planning for additional fundraising when it became clear that the original cost estimate was outdated and additional funds were needed. The new campaign will focus on an expanded donor base.

Question 68: At what stage are the construction drawings?

Answer: The team of architects and engineers will submit final structural drawings on March 29, 2000. The remaining construction documents are about 65 percent complete.

Question 69: When will they be complete?

Answer: The Institution expects final construction documents in August 2000.

Question 70: Who is working on them?

Answer: A team of architects and engineers including Polshek Tobey + Davis, Jones & Jones, the Native American Design Collaborative, Ramona Sakiestewa, and Donna House are developing the construction documents.

Question 71: What is the current time line for construction to start?

Answer: The Smithsonian awarded the site preparation contract in the summer of 1999 and broke ground on September 28, 1999. The Institution expects to award the building construction contract in November 2000.

Question 72: What is the current projected date for completion and opening of the Museum?

Answer: The Smithsonian plans to dedicate the new Museum in December 2002. Construction of the building is expected to be complete in September 2003, and public opening will follow shortly thereafter.

Question 73: Are there any further approvals needed from the Fine Arts Commission or the National Capitol Planning & Zoning Commission?

Answer: Final approvals from the Commission of Fine Arts and the National Capital Planning Commission are required. The Institution expects the Commission of Fine Arts to approve the project in May 2000 and the National Capital Planning Commission to approve the project in June.

Question 74: Is Douglas Cardinal currently involved in this project?

Answer: Douglas Cardinal is no longer involved in the project.

Question 75: Will the Smithsonian Institution recognize Cardinal's contribution to this project and if so, how will you make this recognition?

Answer: The Smithsonian has consistently credited Douglas Cardinal and Geddes Brecher Qualls and Cunningham (GBQC) for developing the conceptual design for the project. Printed materials and other publications concerning the design of the NMAI Mall Museum will continue to recognize this contribution.

Question 76: Is the Smithsonian Institution insuring adherence to the original mission statement as enunciated in "The Way of the People" and the original Cardinal design?

Answer: The Smithsonian is committed to following the spirit of "The Way of the People" and the original Cardinal design of the building. The National Museum of the American Indian works in consultation, collaboration and cooperation with Native people on all of its projects. Native people, including Rick West, Johnpaul Jones, Ramona Sakiestewa, Donna House, and Lou Weller continue to direct the design of the Mall Museum. The design team and their consultants will continue to develop and detail the design of the site and building according to Native design principles and cultural beliefs.

Question 77: Is any litigation against the Smithsonian Institution or the federal government anticipated by Cardinal, contractors or other designers?

Answer: The Institution does not anticipate further legal action.

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