Smithsonian

ADMINISTRATIVELY CONFIDENTIAL

Information not to be released until after the President's Budget is submitted to the Congress in 1999
Smithsonian Institution

Fiscal Year 2000
Budget Request to OMB

September 1998
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THE YEAR IN REVIEW

Near the end of his lengthy will, drafted in 1826, James Smithson wrote a single sentence incorporating the idea of the United States' creating "an establishment dedicated to the increase and diffusion of Knowledge among men." Over the next 170 years that idea grew into the world's largest museum, education, and research complex, pre-eminent in astrophysics, tropical and environmental biology, the history of science, art history, aeronautics and space science, natural history, anthropology, and materials conservation.

The Smithsonian Institution, a name first formed in the Smithson will, today includes 16 museums and galleries and the National Zoological Park that were visited nearly 30 million times this past year. Millions more visited the Institution's traveling exhibitions and the Smithsonian homepage—www.si.edu—the gateway to a new world of information transmission and sharing.

The collections that form the basis for the knowledge that Mr. Smithson sought to increase and diffuse contain about 140 million objects, works of art, and specimens from nature, 122 million of which are in the National Museum of Natural History. The Smithsonian conducts research in its museums, at specialized facilities in eight states and the Republic of Panama, and at field sites around the world.

The most familiar products of Smithsonian research are its exhibitions. None better illustrate the fusion of research and education, of science and art, than the Janet Annenberg Hooker Hall of Geology, Gems and Minerals, the final section of which—"Stories Rocks Tell"—will open in November 1998 at the National Museum of Natural History. Featuring the Hope Diamond rotating in a specially designed case, the hall includes galleries dedicated to plate tectonics, mining, the birth and evolution of our solar system, and rocks, complete with explanations of the effects of wind, water, heat, and internal pressure on their formation.

Another aspect of Institutional research is focused currently at the southern Arizona base camp of the Whipple Observatory, where the conversion of the Multiple Mirror Telescope is nearing completion. A single, 6.5-meter mirror, having more than double the light-gathering power of the six-mirror original and a field of view several hundred times larger, will be
taken up the mountain this fall. With its first light expected in December, the telescope will keep scientists at the Smithsonian Astrophysical Observatory in the forefront of optical and infrared astrophysical research well into the new century.

At the National Air and Space Museum, "Star Wars: The Magic of Myth," commemorates the 20th anniversary of the "Star Wars" trilogy. Artwork objects and concept drawings present original artifacts and scenes from each film and illustrate the technical and philosophical influence of classical mythology in the "Star Wars" trilogy. A classic in its own time, "Star Wars" has contributed greatly to the overall increase in visitation that the Smithsonian recently has experienced.

Over the course of the past year, visitors have been treated to a veritable buffet of other events. Among these has been the first in a series of concerts by the Smithsonian Jazz Masterworks Orchestra to mark next year's 100th anniversary of the birth of Duke Ellington. Also available has been an abundance of exhibitions, selections from which only begin to suggest the range, indeed, the ubiquity, of the Smithsonian:

"Whistler and the Leylands," Freer Gallery of Art
"George Segal, A Retrospective: Sculptures, Paintings, Drawings," Hirshhorn Museum & Sculpture Garden
"Olowe of Ise: A Yoruba Sculptor to Kings," National Museum of African Art
"The Jewels of Lalique," International Gallery
"Our Town: Mural Art of the New Deal Era," National Postal Museum
"Speak to My Heart," Anacostia Museum and Center for African American History and Culture at the Arts and Industries Building.

The Star Spangled Banner, the Institution's most venerable exhibit, attracted the largest corporate gift in Smithsonian history. The President and First Lady helped to celebrate that gift, which will assist in the long-term care and preservation of the flag, and to honor its donor, New York designer Ralph Lauren.

A combination of appropriations and gifts has supported the four-year-long renovation of the Cooper-Hewitt, National Design Museum, and
its stunning Design Resource Center that opened in June 1998. With its state-of-the-art environmental systems and storage equipment, the Center is a model for managing museum collections and making them more accessible to the public, while also maintaining the integrity of historic structures.

The Institution's new affiliations program will be bringing the Smithsonian into localities all across America. In addition to Bethlehem, Pennsylvania, preliminary agreements relating to museum collections and exhibitions have been reached with San Antonio and Arlington, Texas; Bisbee and Scottsdale, Arizona; Miami, Florida; Long Beach, San Jose, and Oakland, California; Providence, Rhode Island; St. Louis, Missouri; San Juan, Puerto Rico; and Washington DC.

To become part of localities around the world, the Smithsonian in all of its parts is continuing to move objects, databases, research and collections information, virtual exhibitions, lesson plans, and visitor services to the Internet. The astonishing acceleration of Internet usage by people, particularly in the United States, who reflect an increasing range of age, gender, ethnicity, and culture, promises fulfillment of the global mandate in that one sentence of Mr. Smithson's will.
The FY 2000 budget request of the Smithsonian, which assumes receipt of the full FY 1999 Congressional request, is based on the Institution's strategic plan, which is included in the Appendix, and on its FY 2000 performance plan, which follows this section. Consistency between the Smithsonian's budget request and its mission, goals, strategies, and measures is the most effective way of ensuring that anticipated results are met.

For FY 2000, the Smithsonian’s request for all operating and capital accounts totals $478.8 million, an increase of $59 million above the FY 1999 request pending in Congress. The Institution has included in its request the consolidation of its capital accounts. This merges the Construction and Improvements, National Zoological Park, account with the Repair and Restoration and Construction accounts, and moves the Minor Construction, Alterations, and Modifications and Planning elements of the Construction account to the Repair and Restoration account. This consolidation will unify all repair and restoration activities in a single account and accomplish the same with construction activities. Institution staff will work with the Office of Management and Budget to accomplish this consolidation.

With the consolidated accounts, the Institution’s FY 2000 request includes $393.3 million for Salaries and Expenses, $63.5 million for Repair, Restoration, and Alteration of Buildings, and $22.0 million for Construction. A summary of the request is provided in the table at the end of this section.

Salaries and Expenses

The Salaries and Expenses (S&E) request includes $19.6 million in mandatory increases to sustain daily operations of the Institution. These increases are for additional costs associated with necessary pay, the conversion of Civil Service Retirement System employees to the Federal Employees Retirement System, utilities and communications, rental space, accessibility improvements, implementation of requirements of the Panama Canal Treaty, and extraordinary inflation. These increases are beyond the Institution’s control and account for approximately 54 percent of the total S&E increase requested for FY 2000.
In addition, the Smithsonian has identified priority program requirements for FY 2000 as follows:

- **Collections preparation ($2.0 million)** - to prepare artifacts for relocation from the Garber facility to the Dulles Center of the National Air and Space Museum.

- **National Museum of the American Indian ($5.0 million)** - to support operations at the Cultural Resources Center (CRC), the CRC move, Mall operations, and Mall exhibits development ($7.992 million), offset by one-time funds requested in fiscal year 1999 for CRC equipment and furnishings (-$2.992 million).

- **Information management resources ($2.0 million)** - to further develop Web-based programming, based on the Institution’s exhibitions, research, and collections.

- **Conservation biology ($1.5 million)** - to enhance research by coordinating efforts across the Institution’s four biological research institutes

- **Exhibition renewal ($2.0 million)** - to provide funds for exhibition research, planning, and preliminary design.

- **Asian Pacific American programming ($0.295 million)** - to establish an Institution-wide funding program to support activities designed to strengthen existing research, exhibitions, and programs that feature Asian Pacific American heritage.

- **Major Scientific Instrumentation ($1.6 million)** – to establish a Field Emission Transmission Electron Microscope Lab at the National Museum of Natural History.

- **Modernization of the Institution’s security system ($2.0 million).**

  Specific details of each requirement are provided in the Salaries and Expenses section of this request.
Capital Accounts

The request for the Repair, Restoration and Alteration of Facilities account ($63.5 million) will help achieve a balance between correcting the unacceptable condition of four of the oldest buildings at the Smithsonian and maintaining the current condition of other Institutional facilities through systematic renewal and repair. For FY 2000, this account includes Minor Construction, Alterations, Modifications, and Planning. National Zoological Park renovations, repairs, alterations, and modifications also are included in this account.

The Smithsonian's Construction request ($22.0 million) includes the final increment of funding for the Mall museum building of the National Museum of the American Indian, as well as funding for facilities at the Smithsonian Environmental Research Center, the Smithsonian Astrophysical Observatory, and the National Zoological Park.

Specific details of each requirement are provided in the Capital Accounts section of this request.
# Smithsonian Institution FY 2000 Budget Request

## By Appropriation Account

### Salaries and Expenses

<table>
<thead>
<tr>
<th>FY 1999 Congressional Request</th>
<th>4,371</th>
<th>$357,300,000</th>
</tr>
</thead>
</table>

**FY 2000 Changes:**

#### Mandatory Increases for Sustaining Base Operations

- **Necessary Pay and Benefits:**
  - Annualization of FY 1999 Pay Raises: $0, 2,878,000
  - Proposed FY 2000 Pay Raises: $0, 7,560,000
  - Retirement System Conversion: $0, 508,000
  - Workers’ Compensation: $0, -82,000

- **Utilities, Communications and Postage:** $0, 2,580,000
- **Rental Space:** $0, 4,464,000
- **Panama Canal Treaty Implementation:** $0, 1,225,000
- **Extraordinary Inflation for Library Materials:** $0, 373,000
- **Accessibility Program:** $0, 100,000

#### Program Changes

- **Collections Preparation - Dulles Center:** $0, 2,000,000
- **National Museum of the American Indian:** 11, 7,992,000
- **Non-recurring National Museum of the American Indian:** $0, -2,992,000
- **Information Management Resources:** $0, 2,000,000
- **Conservation Biology:** 10, 1,500,000
- **Exhibition Renewal:** $0, 2,000,000
- **Asian Pacific American Programming:** $0, 295,000
- **Major Scientific Instrumentation:** $0, 1,600,000
- **Security System Modernization:** $0, 2,000,000

**FY 2000 Salaries and Expenses Request**

<table>
<thead>
<tr>
<th>4,392</th>
<th>$393,301,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPAIR, RESTORATION AND ALTERATION OF BUILDINGS</td>
<td>FTE</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Major Capital Renewal</td>
<td>0</td>
</tr>
<tr>
<td>Repairs, Restoration and Code Compliance</td>
<td>0</td>
</tr>
<tr>
<td>Minor Construction, Alterations and Modifications, and Planning</td>
<td>0</td>
</tr>
<tr>
<td>FY 2000 REPAIR, RESTORATION AND ALTERATION REQUEST</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONSTRUCTION</th>
<th>FTE</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Museum of the American Indian Mall Museum</td>
<td>0</td>
<td>19,000,000</td>
</tr>
<tr>
<td>Smithsonian Environmental Research Center</td>
<td>0</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Smithsonian Astrophysical Observatory</td>
<td>0</td>
<td>1,000,000</td>
</tr>
<tr>
<td>National Zoological Park Aquatics</td>
<td>0</td>
<td>1,000,000</td>
</tr>
<tr>
<td>FY 2000 CONSTRUCTION REQUEST</td>
<td>0</td>
<td>$ 22,000,000</td>
</tr>
</tbody>
</table>

**FY 2000 REQUEST, ALL ACCOUNTS**  
4,392  
$478,801,000
INTRODUCTION TO THE FY 2000 PERFORMANCE PLAN

The Institution has a five-year strategic plan and associated performance plans for FY 1999 and FY 2000 that are consistent with the guidelines of the Government Performance and Results Act of 1993. The strategic plan builds on the mission of the Smithsonian, established for the increase and diffusion of knowledge, by setting three goals:

- **increase knowledge** through research activities and use of Smithsonian collections

- **diffuse knowledge** through exhibitions, publications, programs, electronic communications, and affiliations and through improvements in education and museum training opportunities

- **support increased knowledge and diffusion** through improvements in finance, management, and physical infrastructure

The FY 2000 performance plan includes seven goals that are tied directly to programs: research and collections management; education, public programs and exhibitions; administration; and facilities and security. Each of the performance goals is also directly related to the strategic goals and objectives of the Institution. A copy of the strategic plan is included in the Appendix.

The goals cited in the FY 2000 performance plan reflect specific activities in which the Institution and its units will engage during FY 2000 in order to progress toward achieving the Institution’s strategic goals. The measures and milestones included in the plan will enable the Smithsonian to gauge its progress during FY 2000 in reaching its strategic goals, and will also provide important information about whether strategic goals need to be adjusted in future years. Performance measured against the goals and targets for FY 2000 will be reviewed by Smithsonian management at the end of the fiscal year, and results will be reported to OMB and the Congress.

As the process matures, it is anticipated that the annual performance plan will serve two critical purposes. First, as a tool to assess performance and progress in key areas, it will enable Smithsonian managers to make strategic and operational decisions based on accurate and relevant data. Second, it will enable the Institution to communicate to the public, the
Executive Branch, and Congress the results and achievements of the Smithsonian’s programmatic efforts in support of its mission.

The following section outlines goals and strategies for performance in FY 2000, as well as measures to assess the Institution’s success. Also provided is the breakdown of resources requested in the FY 2000 budget related to the appropriate goals, an update of FY 1999 strategies, and inclusion of funding sources to identify the nature of the public/private partnership.
SMITHSONIAN INSTITUTION PERFORMANCE PLAN  
FISCAL YEAR 2000

I. Research and Collections Management: FY 2000 Request of $147,315,000

Goal #1: Maintain and enhance research

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance Scientific Instrumentation</td>
<td>At least two antennas of the array fully operational on Mauna Kea</td>
<td>Obtain first scientific results</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td>Continue to work toward full operational status of the submillimeter telescope array</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish Field Emission-Transmission Microscope Lab in conjunction with National Museum of Natural History</td>
<td>Complete primary instrument development and lab design; begin procurement</td>
<td></td>
<td>Federal</td>
</tr>
</tbody>
</table>
### I. Research and Collections Management (continued)

**Goal #1: Maintain and enhance research (continued)**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capitalize on SI Strengths in Conservation Biology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance integration of multi-unit conservation initiatives by:</td>
<td></td>
<td></td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td>-- developing research program on causes, patterns, and effects of alien invasive species</td>
<td>Create database on alien invasive species in three regions of U.S. coastal ecosystems; develop methods to coordinate marine invasive species data within patterns of ballast water delivery <strong>(SERC)</strong></td>
<td>Expand database on alien invasive species in coastal ecosystems in six U.S. regions; establish key research sites for measurement of geographic and temporal change of biological invasions; compare patterns of invasion with database in National Clearinghouse on Ballast Water <strong>(SERC)</strong></td>
<td></td>
</tr>
</tbody>
</table>
I. Research and Collections Management (continued)

Goal #1: Maintain and enhance research (continued)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalize on SI Strengths in Conservation Biology (continued)</td>
<td>Establish key research sites comparing impacts in Caribbean and east Pacific (STRI)</td>
<td>Develop conceptual models of ecological response to El Niño and La Niña in central American waters; measure impacts on coral spawning and coral bleaching in Caribbean and eastern Pacific (STRI)</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>Initiate surveys of biodiversity at three main sites in western Pacific Ocean (Natural History)</td>
<td></td>
<td>Federal &amp; Trust</td>
</tr>
</tbody>
</table>
I. Research and Collections Management (continued)

**Goal #1: Maintain and enhance research (continued)**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capitalize on SI Strengths in Conservation Biology (continued)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance integration of multi-unit conservation initiatives by:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-- developing research and training programs to conserve key terrestrial habitats</td>
<td>Develop cooperative programs for monitoring biodiversity of selected indicator taxa and habitats (<strong>Natural History and STRI</strong>)</td>
<td>Establish comparative baselines of biodiversity in forests at several latitudes; expand training programs; develop analytical and evaluative tools for assessing impact of conservation activities (<strong>NZP</strong>)</td>
<td>Federal &amp; Trust</td>
</tr>
</tbody>
</table>
I. Research and Collections Management (continued)

**Goal #2: Provide improved access to collections, including expanded use of electronic technology**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline as of 10/1/98</td>
<td>Target for FY 1999</td>
<td>Target for FY 2000</td>
</tr>
<tr>
<td>Increase the amount and availability of automated collection records</td>
<td>5,700,000 records in automated information systems</td>
<td>6,600,000 records in integrated automated information systems</td>
<td>6,900,000 collection records in integrated automated information systems</td>
</tr>
<tr>
<td>Increase the number of digitized images of collection objects online</td>
<td>98,000 digitized images online</td>
<td>1,500,000 digitized images online</td>
<td>2,000,000 digitized images online</td>
</tr>
</tbody>
</table>
i. Research and Collections Management (Continued)

**Goal #3: Provide effective collections care, including improved storage**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move collections items into improved and more accessible storage</td>
<td>65% of move completed (Museum Support Center)</td>
<td>73% of move completed (Museum Support Center)</td>
<td>Federal</td>
</tr>
<tr>
<td></td>
<td>Issue first phase of move contract; prepare, pack, and transport collection</td>
<td>Move 20% of collection from New York to Suitland (American Indian, Cultural</td>
<td>Federal</td>
</tr>
<tr>
<td></td>
<td>(American Indian, Cultural Resources Center)</td>
<td>Resources Center)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equip conservation facility, deinstall Star Spangled Banner and begin treatment</td>
<td>Complete 30% of flag conservation (American History)</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>(American History)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## I. Research and Collections Management (continued)

### Goal #3: Provide effective collections care, including improved storage (continued)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline as of 10/1/98</td>
<td>Target for FY 1999</td>
<td>Target for FY 2000</td>
</tr>
<tr>
<td>Move collections items into improved and more accessible storage (continued)</td>
<td>Complete asbestos removal from objects in Building 17; begin building renovation (American History)</td>
<td>Complete building renovation and continue object verification (American History)</td>
<td>Federal</td>
</tr>
<tr>
<td></td>
<td>Relocate insect collections (inspect, clean, stabilize, pack, and move to new location) (Natural History)</td>
<td>Complete 80% of move to East Court (Natural History)</td>
<td>Federal</td>
</tr>
<tr>
<td></td>
<td>Categorize, preserve and prepare 30% of the large aircraft for the move from Suitland to Dulles (Air and Space)</td>
<td></td>
<td>Federal</td>
</tr>
</tbody>
</table>
II. Education, Public Programs and Exhibitions: FY 2000 Request of $58,605,000

**Goal #1: Provide new and updated exhibits that serve a wider audience**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update or renew permanent exhibits</td>
<td>Install &quot;On Time.&quot; Fabricate and install &quot;Mechanisms&quot; <em>(American History)</em></td>
<td>Install &quot;American Legacies&quot; exhibit in place of &quot;Material World&quot; <em>(American History)</em></td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>Star Spangled Banner: Design new housing and display area for flag <em>(American History)</em></td>
<td>Complete design and begin construction on new flag hall <em>(American History)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construct, fabricate and install new Hall of African History and Culture; upgrade two cases in North American Indian Hall <em>(Natural History)</em></td>
<td>Fabricate and install new welcome center in Taylor Gallery <em>(American History)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plan for renovation of exhibits on Asian and Pacific Peoples, North American Indians, and Latin American Cultures <em>(Natural History)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. Education, Public Programs and Exhibitions (continued)

*Goal #1: Provide new and updated exhibits that serve a wider audience (continued)*

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve progress in making public exhibits accessible to all visitors</td>
<td>Provide alternative interpretation for locations where walkway slopes exceed 8.3%, such as Great Flight Cage, Valley Trail, and Australia Exhibit <em>(NZP)</em></td>
<td>Have a full-service program in effect to accommodate visitors on demand or by advance request <em>(NZP)</em></td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>Improve labels and text by replacing, relighting, rescreening, or tilting as appropriate in up to two halls, including Emergence of Land Life and South America <em>(Natural History)</em></td>
<td>Fully meet accessibility requirements in all new exhibit designs and installations. <em>(Natural History)</em></td>
<td>Federal &amp; Trust</td>
</tr>
</tbody>
</table>
II. Education, Public Programs and Exhibitions (continued)

Goal #1: Provide new and updated exhibits that serve a wider audience (continued)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase and diversify visitor audience</td>
<td>Measure number of SI exhibits developed and distributed which are aimed at reaching underserved audiences</td>
<td>Increase number of exhibitions throughout SI aimed at underserved audiences. Increase by 20% the number of rural communities hosting exhibitions; increase by 30% the number of libraries, train depots, parks, malls and other locations that host traveling exhibits (SITES)</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>Increase sampling the attendance of diverse audiences at specified exhibits</td>
<td>Continue to monitor attendance of diverse audiences to exhibits and programs</td>
<td>Federal &amp; Trust</td>
</tr>
</tbody>
</table>
III. Administration: FY 2000 Request of $58,856,000

Goal #1: Improve the efficiency of institution-wide administrative work processes

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the data available from and availability of systems and subsystems which are aimed at improving the efficiency of Smithsonian work processes</td>
<td>Implement spending plan modules for all fund sources in automated budget system</td>
<td>Evaluate the use of spending plan modules for all fund sources</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td>Develop Smithsonian Financial System reports for management use</td>
<td>Assess the extent to which financial system reports are used by and useful to management for decision making</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Define the requirements for a new and expanded administrative Management Information System</td>
<td>Federal &amp; Trust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Develop personnel reform policies that are responsive to the needs of the Institution</td>
<td>Federal &amp; Trust</td>
</tr>
</tbody>
</table>
### Goal #2: Seek opportunities to improve fundraising and increase revenues

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measure for FY 1999</th>
<th>Measure for FY 2000</th>
<th>Source of Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop capital campaign</td>
<td>Develop the Case Statement based on museums, research institutes, and Institution-wide needs and priorities</td>
<td>Test umbrella case statement, develop museum/research case statements, develop gift tables of support by museum and research institute</td>
<td>Trust</td>
</tr>
<tr>
<td></td>
<td>Develop campaign policies, prospect management, tracking and coordination, campaign gift counting, stewardship, and donor relations</td>
<td>Implement campaign volunteer structure, recruit and train volunteer leadership</td>
<td>Trust</td>
</tr>
<tr>
<td></td>
<td>Implement a program for Institution-wide staff development to focus on major gift activity</td>
<td>Identify and evaluate prospects, execute marketing/communication strategy, solicit leadership gifts and Smithsonian staff/volunteers</td>
<td>Trust</td>
</tr>
</tbody>
</table>
### IV. Facilities and Security: FY 2000 Request (Salaries and Expenses Only) of $128,525,000

**Goal #1: Maintain, preserve and upgrade the quality, condition and security of existing facilities**

<table>
<thead>
<tr>
<th>Strategy</th>
<th><strong>Measure for FY 1999</strong></th>
<th><strong>Measure for FY 2000</strong></th>
<th><strong>Source of Funding</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Baseline as of 10/1/98</strong></td>
<td><strong>Target for FY 1999</strong></td>
<td><strong>Target for FY 2000</strong></td>
</tr>
<tr>
<td>Continue planning and implementing the systematic renewal and repair of facilities to ensure all major buildings are within an acceptable performance range, as defined by the Building Research Board of the National Research Council</td>
<td>Two buildings below the acceptable level</td>
<td>No additional buildings fall below the acceptable level</td>
<td>No additional buildings fall below the acceptable level</td>
</tr>
<tr>
<td>Provide improved security system</td>
<td>Develop and deliver written standards for system components</td>
<td>MTBD</td>
<td>MTBD</td>
</tr>
<tr>
<td></td>
<td>Deliver master design plan</td>
<td>MTBD</td>
<td>MTBD</td>
</tr>
<tr>
<td></td>
<td>Deliver acceptance procedures plan</td>
<td>MTBD</td>
<td>MTBD</td>
</tr>
<tr>
<td></td>
<td>Deliver and accept card access master database, photo pass and ID system</td>
<td>MTBD</td>
<td>MTBD</td>
</tr>
</tbody>
</table>
SMITHSONIAN INSTITUTION
SALARIES AND EXPENSES

Summary of FY 2000 Change

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 1999 Request to Congress</td>
<td>$357,300,000</td>
</tr>
<tr>
<td>FY 2000 Increases/Decreases:</td>
<td></td>
</tr>
<tr>
<td><strong>Mandatory Costs –</strong></td>
<td></td>
</tr>
<tr>
<td>FY 2000 Requirements</td>
<td>$19,688,000</td>
</tr>
<tr>
<td>FY 1999 Non-Recurring Costs</td>
<td>(82,000)</td>
</tr>
<tr>
<td>Net Mandatory Cost Increases</td>
<td>$19,606,000</td>
</tr>
<tr>
<td><strong>Program Increases –</strong></td>
<td></td>
</tr>
<tr>
<td>FY 2000 Requested Increases</td>
<td>$19,387,000</td>
</tr>
<tr>
<td>FY 1999 Non-Recurring Costs</td>
<td>(2,992,000)</td>
</tr>
<tr>
<td>Net Program Increases</td>
<td>$16,395,000</td>
</tr>
<tr>
<td>FY 2000 Request to OMB</td>
<td>$393,301,000</td>
</tr>
</tbody>
</table>
SALARIES AND EXPENSES

<table>
<thead>
<tr>
<th>FY 1998 Appropriation</th>
<th>$ 333,408,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 1999 Estimate</td>
<td>$ 357,300,000</td>
</tr>
<tr>
<td>FY 2000 Estimate</td>
<td>$ 393,301,000</td>
</tr>
</tbody>
</table>

This section provides specific details about the Institution's Salaries and Expenses budget request for FY 2000. Of the total increase requested, approximately 54 percent is attributable to mandatory costs for sustaining base operations and the remainder is for priority program requirements for critical ongoing projects within the Institution.

MANDATORY INCREASES FOR SUSTAINING BASE OPERATIONS

The Smithsonian Institution seeks additional funds for costs that are beyond its control to manage. These costs result from legislatively mandated pay increases; conversion of CSRS employees to FERS; increases in utilities, communications, and rental space; the transfer of ownership of the Panama Canal; escalating costs of library materials; and accessibility improvements. Of the requested increases, non-recurring workers’ compensation costs are being returned. The Institution requests a net increase of $19,606,000 for these mandatory costs, as shown below.

*Salary and Related Costs:*
- Annualization of FY 1999 Pay Raises: $2,878,000
- Proposed FY 2000 Pay Raises: 7,560,000
- Conversion from CSRS to FERS: 508,000
- Non-recurring Workers’ Compensation: (82,000)
  - Subtotal, Salary and Related Costs: $10,864,000

*Other Costs:*
- Utilities, Communications, and Postage: $2,580,000
- Rental Increases: 4,464,000
- Panama Canal Treaty Implementation: 1,225,000
- Extraordinary Inflation for Library Materials: 373,000
- Accessibility Improvements: 100,000
  - Subtotal, Other Costs: $8,742,000

Total Mandatory Increases: $19,606,000
Salary and Related Costs - The Institution requests $10,864,000 for higher projected salary and benefits costs in FY 2000 for staff as described below. A line-item display of the Necessary Pay components of these costs also is provided.

- **Annualization of FY 1999 Pay Raises**: $2,878,000 to annualize the costs of the anticipated 3.6 percent January 1999 pay raise.

- **Proposed FY 2000 Pay Raises**: $7,560,000 to fully fund the anticipated 4.4 percent January 2000 pay raise for three-quarters of a year.

- **Conversion from Civil Service Retirement System to Federal Employees Retirement System**: $508,000 to cover the costs of CSRS participants’ converting to FERS as a result of legislation allowing such conversions.

- **Non-recurring Workers’ Compensation**: $82,000 for the return of funds associated with excess Workers’ Compensation costs. The FY 1999 bill for the Institution’s Federal portion ($1,984,000) covers actual expenses incurred for the period July 1, 1997 through June 30, 1998. With $2,066,000 in its base for workers’ compensation, the Institution’s FY 2000 request includes a reduction of $82,000 in non-recurring costs.
## FY 2000 Necessary Pay Costs

(Dollars in Thousands)

<table>
<thead>
<tr>
<th>UNIT</th>
<th>FY 1999 Pay Raise</th>
<th>FY 2000 Pay Raise</th>
<th>Total Necessary Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anacostia Museum</td>
<td>14</td>
<td>37</td>
<td>51</td>
</tr>
<tr>
<td>Archives of American Art</td>
<td>19</td>
<td>48</td>
<td>67</td>
</tr>
<tr>
<td>Arthur M. Sackler Gallery/Freer Gallery of Art</td>
<td>57</td>
<td>151</td>
<td>208</td>
</tr>
<tr>
<td>Center for Folklife Programs and Cultural Studies</td>
<td>14</td>
<td>35</td>
<td>49</td>
</tr>
<tr>
<td>Cooper-Hewitt, National Design Museum</td>
<td>26</td>
<td>69</td>
<td>95</td>
</tr>
<tr>
<td>Hirshhorn Museum and Sculpture Garden</td>
<td>42</td>
<td>110</td>
<td>152</td>
</tr>
<tr>
<td>National Air and Space Museum</td>
<td>144</td>
<td>379</td>
<td>523</td>
</tr>
<tr>
<td>National Museum of African Art</td>
<td>34</td>
<td>89</td>
<td>123</td>
</tr>
<tr>
<td>National Museum of American Art</td>
<td>84</td>
<td>219</td>
<td>303</td>
</tr>
<tr>
<td>National Museum of American History</td>
<td>216</td>
<td>567</td>
<td>783</td>
</tr>
<tr>
<td>National Museum of the American Indian</td>
<td>93</td>
<td>245</td>
<td>338</td>
</tr>
<tr>
<td>National Museum of Natural History</td>
<td>405</td>
<td>1,062</td>
<td>1,467</td>
</tr>
<tr>
<td>National Portrait Gallery</td>
<td>59</td>
<td>153</td>
<td>212</td>
</tr>
<tr>
<td>National Zoological Park</td>
<td>210</td>
<td>550</td>
<td>760</td>
</tr>
<tr>
<td>Smithsonian Astrophysical Observatory</td>
<td>146</td>
<td>386</td>
<td>532</td>
</tr>
<tr>
<td>Smithsonian Center for Materials Research and Education</td>
<td>30</td>
<td>79</td>
<td>109</td>
</tr>
<tr>
<td>Smithsonian Environmental Research Center</td>
<td>31</td>
<td>79</td>
<td>110</td>
</tr>
<tr>
<td>Smithsonian Tropical Research Institute</td>
<td>90</td>
<td>238</td>
<td>328</td>
</tr>
<tr>
<td>Communications and Educational Programs</td>
<td>50</td>
<td>129</td>
<td>179</td>
</tr>
<tr>
<td>Office of Exhibits Central</td>
<td>25</td>
<td>67</td>
<td>92</td>
</tr>
<tr>
<td>Museum Support Center</td>
<td>28</td>
<td>74</td>
<td>102</td>
</tr>
<tr>
<td>Smithsonian Institution Archives</td>
<td>15</td>
<td>41</td>
<td>56</td>
</tr>
<tr>
<td>Smithsonian Institution Libraries</td>
<td>61</td>
<td>163</td>
<td>224</td>
</tr>
<tr>
<td>Smithsonian Institution Traveling Exhibition Service</td>
<td>28</td>
<td>72</td>
<td>100</td>
</tr>
<tr>
<td>Administration</td>
<td>293</td>
<td>772</td>
<td>1,065</td>
</tr>
<tr>
<td>Office of Protection Services</td>
<td>354</td>
<td>933</td>
<td>1,287</td>
</tr>
<tr>
<td>Office of Physical Plant</td>
<td>310</td>
<td>813</td>
<td>1,123</td>
</tr>
</tbody>
</table>

**TOTAL NECESSARY PAY** | **2,878** | **7,560** | **10,438**
Utilities, Communications, and Postage - The Institution requests an increase of $2,580,000 for utilities, communications, and postage in FY 2000 to cover additional costs attributable to new facilities, increased consumption, and projected rate increases. The following table displays estimates from FY 1998 through FY 2000. Detailed explanations of each line item follow.

**Federal Utilities, Communications, and Postage Costs**
**FY 1998 - FY 2000**

<table>
<thead>
<tr>
<th>(Dollars in Thousands)</th>
<th>FY 1998 Estimate</th>
<th>FY 1999 Estimate</th>
<th>FY 2000 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>10,889</td>
<td>11,106</td>
<td>11,404</td>
</tr>
<tr>
<td>Steam</td>
<td>3,242</td>
<td>3,470</td>
<td>3,412</td>
</tr>
<tr>
<td>Gas</td>
<td>1,295</td>
<td>1,527</td>
<td>1,591</td>
</tr>
<tr>
<td>Fuel Oil/Water</td>
<td>427</td>
<td>437</td>
<td>454</td>
</tr>
<tr>
<td>DC Gov’t Water/Sewer</td>
<td>2,520</td>
<td>2,055</td>
<td>3,247</td>
</tr>
<tr>
<td>Communications/Networks</td>
<td>7,841</td>
<td>8,697</td>
<td>9,697</td>
</tr>
<tr>
<td>Postage</td>
<td>2,492</td>
<td>2,250</td>
<td>2,317</td>
</tr>
<tr>
<td>Total</td>
<td>28,706</td>
<td>29,542</td>
<td>32,122</td>
</tr>
<tr>
<td>Base</td>
<td>28,706</td>
<td>29,542</td>
<td>29,542</td>
</tr>
<tr>
<td>Surplus/(Deficit)</td>
<td>0</td>
<td>0</td>
<td>(2,580)</td>
</tr>
</tbody>
</table>

1 FY 1998 base includes a one-time amount for NMAI communications.

**Electricity** – The major component of the Utilities account is electricity. In addition to lighting and office equipment, electricity powers the machinery that provides cooling for Smithsonian buildings. A vigorous energy management program has allowed the Institution to maintain consistent electrical consumption levels throughout most facilities. The most significant element of the program is the installation of automated central controls on most building systems that automatically cycle motors and pumps on and off as needed to limit consumption during high-use or high-rate periods and during unoccupied hours. The installation of energy-efficient lighting in museums and storage facilities also contributed to savings in electricity. The FY 2000 estimate reflects a three percent inflation rate and a small increase in costs associated with the Potomac Electric Power Company request for a rate increase of five percent in Maryland.
Steam - Steam is used primarily for heating Smithsonian facilities on the Mall and in New York, year-round humidification, and hot water production. Maintaining an interior environment conducive to the preservation of artifacts requires large steam consumption. The FY 2000 request reflects a decrease in steam costs due to increases in reimbursable billing for steam consumption for concessions operating within Smithsonian facilities.

Gas - Natural gas is used for heating and cooling at most facilities that are not in the Mall area. The FY 2000 request includes an overall three percent cost increase based on past experience and on a modest increase in usage for these facilities.

Fuel Oil/Water - The FY 2000 estimate assumes a decrease in fuel oil costs because of the use of natural gas as the primary heating fuel in most facilities off the Mall. The request assumes an increase in water consumption and a three percent inflation rate for water and sewer costs for satellite storage facilities in Maryland and Virginia.

DC Government Water/Sewer - The FY 2000 estimate for water and sewer costs levied by the District of Columbia Government is based on cost projections provided by the District in FY 1998. The request also includes anticipated charges based on a 42 percent rate increase effective April 1997.

Communications/Networks - The FY 2000 estimate for communications includes funds to support inflationary increases in voice and data communications infrastructure and services, to meet new Federal requirements for conversion of radio communications to shared radio frequencies, and to replace antiquated components of the communications infrastructure in order to provide essential new services such as high-speed Internet access to digitized information of interest to the public.

Postage - The FY 2000 estimate for postage reflects a projected increase of three percent to cover the cost of an anticipated increase in volume for the Institution.
Rental of Space ($4,464,000)

Central Rent - The Institution requests $3,874,000 for increased expenses in the central rental account ($374,000) and for NMAA/NPG rent for swing space ($3,500,000).

Leased space in the Washington DC, New York, and Boston areas provides critical collection housing and storage, as well as space for the Institution’s exhibition, education, research, and administrative offices. The request reflects projected cost increases in base rent operating and real estate charges.

Leased space is needed to relocate temporarily occupants of the Patent Office Building (National Museum of American Art and National Portrait Gallery). A major capital renewal project is scheduled to begin in the year 2000. Renovation of the building cannot proceed until staff are relocated and collections are removed. An increase of $20 million justified in the Repair, Restoration and Alterations section of this budget request will support major capital renewal of the Patent Office Building.

The following table reflects projected costs for Federal central rental space for FY 1998 through FY 2000.

**Federal Central Rental Costs**

**FY 1998 - FY 2000**

<table>
<thead>
<tr>
<th>(Dollars in Thousands)</th>
<th>FY 1998 Estimate</th>
<th>FY 1999 Estimate</th>
<th>FY 2000 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Space</td>
<td>3,160</td>
<td>3,259</td>
<td>3,455</td>
</tr>
<tr>
<td>Warehouse Space/Other</td>
<td>2,684</td>
<td>2,974</td>
<td>3,152</td>
</tr>
<tr>
<td>NMAA/NPG Swing Space</td>
<td>--</td>
<td>--</td>
<td>3,500</td>
</tr>
<tr>
<td>Total</td>
<td>5,844</td>
<td>6,233</td>
<td>10,107</td>
</tr>
<tr>
<td>Base</td>
<td>5,844</td>
<td>6,233</td>
<td>6,233</td>
</tr>
<tr>
<td>Surplus/(Deficit)</td>
<td>0</td>
<td>0</td>
<td>(3,874)</td>
</tr>
</tbody>
</table>

SAO Rent - The Institution requests $590,000 for increased costs of rent for Smithsonian Astrophysical Observatory (SAO) operations in Cambridge, Massachusetts. Of this amount $100,000 is necessary to cover uncontrollable increases in rent at current Cambridge facilities and $170,000 is necessary to obtain urgent, additional staff space there. An
increase of $320,000 is necessary to rent additional space in Hilo, Hawaii, for the Submillimeter Array Project.

**Implementation of the Panama Canal Treaty** - Funding of $1,225,000 is requested for FY 2000 to support the increase in operating costs at the Smithsonian Tropical Research Institute (STRI) in Panama that result from implementation of the 1977 Panama Canal Treaty. Under its terms and conditions, the United States will turn over responsibility for the operation of the Panama Canal and its related facilities to the Republic of Panama on December 31, 1999. STRI is authorized to continue its tropical research mission there for 20 years beyond 2000 under a 1997 agreement with the Republic of Panama that is renewable for another 20 years. Nonetheless, in the year 2000 the labor laws of Panama will become applicable to locally hired employees of STRI, which will have to make changes in its personnel system in order to comply with those laws. The results of a commissioned study indicate that the cost of adjusting the local employment system of STRI for FY 2000 is $1,225,000.

**Extraordinary Inflation for Library Materials** - For FY 2000 the Institution requests $373,000 to counter the effects of continuing inflationary increases in book and journal purchases. Of this amount, $350,000 is requested for the Smithsonian Institution Libraries (SIL) and $23,000 is requested for the Smithsonian Astrophysical Observatory (SAO) library.

Funding for SIL is requested to acquire important new scientific journals, expand access to electronic resources for SI research, and maintain its ability to purchase monographs in many fields. The mission-critical demand for SIL to keep current its increasingly costly scientific journal collection now makes it nearly impossible to purchase the monographs specifically required by SI staff. Because more than 30 percent of the Smithsonian’s scholars work in book-dependent disciplines, this shortfall is causing irreparable damage to research efforts. Scholarly monographs and other primary research materials are unlikely to appear in digital form in the foreseeable future.

The funding requested for SAO is to renew core journal subscriptions required to support research and education activities.

Lack of funding to combat more than ten years of double-digit inflation, combined with chronically unfavorable foreign exchange rates, has seriously jeopardized the Institution’s library research holdings. In this period, journal inflation averaged 11.9 percent annually, and reached as much as 16 percent. The Institution, which projects a rise in journal prices
of at least 10 percent in FY 1999, already spends 33 percent less on direct support for individual researchers than other academic institutions. Without funding to cover current inflation, book and journal purchasing power will continue to decline.

**Accessibility Improvements** - While the Institution has made substantial progress in correcting inaccessible buildings, Smithsonian exhibitions, publications, and media designed before 1990 often and inadvertently present barriers to many people with disabilities. Exhibition labels that are too high, circulation routes with low light levels, videos without captions and audio description, and print-only publications limit the use of the Institution’s extraordinary resources by individuals with mobility limitations, hearing and vision loss, and cognitive disabilities. Nor can people who are older, have temporary disabilities, or have children in strollers benefit fully from Smithsonian programs where these deficiencies exist.

In 1996 all Smithsonian units made an accessibility assessment of existing exhibitions, publications, and audio-visual productions and developed five-year plans for correcting deficiencies. Certain areas have become common priorities across the Institution:

- Providing alternative publication format, such as large print, audio tape, braille, and disk
- Making exhibition labels and signs more readable and legible
- Providing accessible exhibition furniture such as seating and cases at appropriate heights.

Some units initiated work in these areas during FY 1997 but a great deal remains to be corrected.

Funding of $100,000 is requested to enable the Institution to provide support to high-priority, public-oriented projects across the Institution. When combined with base funds requested in FY 1999, this increase would bring the central Institutional pool to an amount sufficient to place into motion corrective actions that will serve the Institution into the new millennium.
SUMMARY OF PROGRAM CHANGES

To ensure excellence in its public programs and facilities, strengthen its pre-eminence in scientific and scholarly research, capitalize on new opportunities for expanded outreach, and increase security of its valuable collections, the Institution requires funding for the following critical ongoing projects in FY 2000:

The National Air and Space Museum preparation and preservation of collections for transfer to the Dulles Center ($2,000,000). This request supports inspection, inventory, and preservation of artifacts.

The National Museum of the American Indian move of collections in New York to the Cultural Resources Center (CRC) in Suitland, Maryland (11 FTEs and $7,992,000). This request supports the physical move of artifacts, additional operations of the CRC, development of inaugural exhibits at the Mall Museum, and expanded outreach activities, including community services and publications. This request is offset by $2,992,000 in one-time funding provided in FY 1999.

Information Management Resources ($2,000,000). This request supports efforts to maximize the Smithsonian’s ability to develop and maintain programming and research information available on the Web, including retrospective cataloging, the addition of contextual information, and document scanning.

Conservation Biology (10 FTEs and $1,500,000). This request supports the enhancement, integration, and further development of three vital and integrative ecological programs addressing invasive alien species, marine ecosystems, and conservation of vulnerable terrestrial habitats.

Exhibition Renewal ($2,000,000). This request supports the creation of an exhibition renovation fund to provide seed money for research, planning, and preliminary design for the development and renewal of aging, permanent exhibitions across the Institution, and to attract potential private donors.

Asian Pacific American Programming ($295,000). This request supports the establishment of a pool of funds to strengthen existing research, collections, exhibitions, and programs that reflect Asian Pacific American heritage throughout the Institution.
Major Scientific Instrumentation – Field Emission Transmission Electron Microscope Laboratory ($1,600,000). This request supports the construction of a laboratory and development and purchase of equipment to analyze extraterrestrial particles within meteorites and from upcoming NASA space missions.

Security System ($2,000,000). This request supports the Security Modernization Program and the phased replacement of the outdated, automated Smithsonian Institution Proprietary Security System, including engineering support, training, installation, testing, and documentation.

These initiatives are described in further detail in the line-item descriptions that follow.
ANACOSTIA MUSEUM AND CENTER FOR AFRICAN AMERICAN HISTORY AND CULTURE

APPLICATION OF OPERATING RESOURCES

<table>
<thead>
<tr>
<th></th>
<th>FEDERAL APPROPRIATIONS</th>
<th>GENERAL TRUST</th>
<th>DONOR/SPONSOR DESIGNATED</th>
<th>GOV'T GRANTS &amp; CONTRACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTE</td>
<td>$000</td>
<td>FTE</td>
<td>$000</td>
</tr>
<tr>
<td>FY 1998 ESTIMATE</td>
<td>25</td>
<td>1,784</td>
<td>4</td>
<td>767</td>
</tr>
<tr>
<td>FY 1999 ESTIMATE</td>
<td>24</td>
<td>1,785</td>
<td>4</td>
<td>895</td>
</tr>
<tr>
<td>FY 2000 ESTIMATE</td>
<td>24</td>
<td>1,836</td>
<td>4</td>
<td>898</td>
</tr>
</tbody>
</table>

ABSTRACT - The Anacostia Museum and Center for African American History and Culture explores the heritage and cultural expressions of people of African descent living in the Americas. The Museum presents exhibitions in the Arts and Industries Building and at its facility in Southeast Washington. It also sponsors an array of educational and scholarly programs and activities.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Anacostia Museum and Center for African American History and Culture. The Institution requires $51,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - The Anacostia Museum and Center for African American History and Culture examines and interprets Black contributions to the customs, traditions, and history of the Americas. The Museum collects and preserves historical and cultural artifacts, documents, art, and photography. Museum scholars develop both in-house and traveling African American-focused exhibitions. The Museum presents a variety of multi-faceted educational and scholarly programs reaching audiences ranging from elementary school to those with advanced degrees.

Research - The Museum has embarked upon new areas of research which will result in exhibitions, programs, and publications. Staff have begun to inventory museum, library, and archival collections focusing on African American dance as well as the dance traditions of Africa and the Caribbean. They have completed both a survey of the personal holdings of prominent dance scholars and plans for exploring African American dance
companies and choreographers in Washington DC. A multi-year project exploring the legacy and work of Katherine Dunham, perhaps the nation's most celebrated African American dancer and choreographer, is in progress.

A 15-member advisory board composed of scholars, chefs, and critics has been established for an upcoming exhibition entitled, "With These Hands: African American Food and Cultural Traditions." The Smithsonian Institution's Center for Folklife Programs and Cultural Studies and the National Council of Negro Women are partners in this endeavor.

**Exhibitions** – "Speak To My Heart: Communities of Faith and Contemporary African American Life" brought new and repeat visitors to the Arts and Industries Building. Supported by the Lily Endowment and the Henry Luce Foundation, the exhibit has been featured prominently in the national media and strengthens the Museum's connections to the African American spiritual communities. In addition, the Museum presented "In Search of Balance: The Artist Scholar" featuring the work of six artists known for their work in higher education, including Dr. David Driskell, chair of the National Museum of African Art Commission. It also showcased the work of African American women artists in a traveling exhibition, "Three Generations of African American Women Sculptors: A Study in Paradox." The groundbreaking exhibition, "Man Made: African American Men in the Quilting Tradition" was critically acclaimed for providing new insight into an American cultural expression.

**Education, Outreach, and Special Events** - The Museum continues to break new ground in the development and presentation of special and commemorative events. The 1998 Martin Luther King, Jr. holiday observance featured Arthur Mitchell, artistic director of the Dance Theatre of Harlem. Carnival 98, the Museum's first fund raiser brought more than 500 masked and costumed participants to the Smithsonian Castle for which NOVUS Services and the Canadian Embassy were the leading supporters. A series of workshops and a follow-up conference focusing on Carnival traditions in Caribbean community life were held before and after the event.

The Museum's partnership with the Lucy Ellen Moten Elementary School flourished in its sixth year. A student discovered the previously unknown location of the grave site of the noted educator and the story was prominently featured in the *Washington Times*. 
NONAPPROPRIATED RESOURCES - General Trust Funds provide support for salaries and benefits of administrative personnel, development activities and exhibition-related costs. Donor/Sponsor designated funds provide support for specific exhibitions, programs, projects, and events.
ARCHIVES OF AMERICAN ART

APPLICATION OF OPERATING RESOURCES

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<th>FEDERAL APPROPRIATIONS</th>
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ABSTRACT - The Archives of American Art (AAA), a national research repository with reference centers in Washington DC, New York City, Boston, Detroit, Los Angeles, and San Francisco, holds the world’s largest collection of archival materials relating to the history of the American visual arts. This collection includes original manuscripts, photographs, works of art on paper, and tape-recorded oral and video interviews. The collection is housed in Washington DC, with microfilm copies of many documents made available in the reference centers and through national and international library loans. The Archives actively seeks out, collects, preserves, and microfilms original source materials for study by scholars, students, curators, and collectors, and encourages research in American art and cultural history through publications, symposia, lectures, and other public programs. The catalog of the Archives’ holdings is available on the Smithsonian Institution Research Information System (SIRIS) via the Internet, and the Research Library Information Network (RLIN).

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Archives of American Art. The Institution requires $67,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - AAA collects, preserves, and makes available for study the records, original papers, photographs, diaries, and oral history interviews of artists, craftsmen, collectors, dealers, critics, museums, and other institutions. In FY 1998, AAA continued to meet its goal of increasing accessibility to the collections through a variety of means, including the processing of papers, the publication of finding aids, the display of original
documents in exhibitions, website enhancement, and other forms of outreach.

**Research** - In FY 1998, AAA employed technology to increase access for its users when it unveiled its newly updated and revised website. The site, which includes a link to the Smithsonian’s “Cyber Safari,” encompasses various categories, including the history of the Archives, its collections, membership information, list of publications in print, and its on-going programs, as well as links to the online catalog and reference desk. The revised site also featured for the first time a thematic display of selected works from the collections at the same they were on exhibition. Since the unveiling of the new website in early FY 1998, the Archives has experienced a 25 percent increase in inquiries from scholars both nationally and internationally. Other enhancements of the site included the Web versions of the publications *The Papers of African American Artists* and *The Papers of Latino and Latin American Artists*, an online *Guide to Art Gallery Records*, and the online version of the Richard Diebenkorn oral history transcript.

Also in FY 1998, AAA completed the Name Authority Project, wherein its paper-based name authority file was converted to a machine-readable format, providing online access to names, biographical data, and cross-references. The Archives improved interlibrary loan services for a wide range of borrowers by barcoding 8,000 reels of microfilm and installing software to track the movement of reels throughout the Interlibrary Loan System.

**Collections Acquisitions** - In FY 1998, the Archives made significant additions to its holdings of over 13 million documents. Among these were the papers of Hans Hofmann (1880-1966), an Abstract Expressionist who achieved fame and influence through his abstract paintings and by the school he established in America after fleeing Nazi Germany. The Archives also acquired the final installment of the papers of Herbert Waide Hemphill, Jr. (1929-1998), folk art collector, founder of the Museum of American Folk Art, and Smithsonian benefactor. A major addition to the collections is the papers of the sculptor/painter Claire Falkenstein (1908-1997), a prolific and internationally known artist, whose achievements included the commission for the gates at the Venice home (now museum) of Peggy Guggenheim.
Funds from the Institution-wide pool for Latino programming enabled the Archives to complete the first phase of an oral history project in Miami, Florida to interview prominent Cuban-American artists. Funds also supported a project to produce video interviews with Puerto Rican artists and to conduct a comprehensive survey of art-related manuscript materials in Puerto Rico.

Collections Management - AAA made significant progress in its goal to increase accessibility to collections with the completion of several processing projects. Among these was the processing and microfilming of the Rockwell Kent papers (103 reels) and the publication of A Finding Aid to the Rockwell Kent Papers. Also processed were the records of the American Federation of Arts and the Downtown Gallery. Finding aids for both collections are forthcoming, as well as for the Holger Cahill Papers, the Abraham Rattner papers, and the Tomás Ybarra-Frausto papers. The finding aids comprise a significant resource for researchers in American art history and complement the reference services that are central to the Archives' mission.

Publications and Outreach - The Archives of American Art Journal publishes scholarly articles showcasing AAA’s collections, as well as book reviews and reports from AAA’s regional centers on recent important acquisitions. In FY 1998, AAA presented “Visual Thinking: Sketchbooks from the Archives of American Art,” featuring sketchbooks from prominent as well as little-known nineteenth and twentieth century American artists. The sketchbooks, which were also presented online on the AAA website, surprise in their variety and reveal intimate glimpses into the workings of the creative process. Also in FY 1998, the Archives displayed “El Movimiento: Selections from the Tomás Ybarra-Frausto Research Material on Chicano Art.” Dr. Ybarra-Frausto, a scholar and former chair of the Smithsonian Council and of the Smithsonian Latino Oversight Committee, donated to the Archives over 20,000 items consisting of correspondence, photographs, and rare printed material gathered for his research on Chicano art. These papers constitute a major addition to the holdings already documented in the Archives’ publication, The Papers of Latino and Latin American Artists (1996).

The Archives manages an active program of outgoing loans to museums and other scholarly institutions, and continues its tradition of providing educational opportunities to an ethnically diverse population through internships and fellowships in Washington DC, New York City, and Boston.
NONAPPROPRIATED RESOURCES - Trust funds provide support for salaries and benefits of personnel, fundraising, and support for AAA projects and programs. In FY 1998, the Archives received the final installment of a three-year, $240,000 grant from The Henry Luce Foundation, Inc. to process and microfilm three major collections. Throughout the year, donors made numerous gifts toward the matching of a $500,000 challenge grant from The Brown Foundation, Inc., to endow the publication of the Archives Journal.
ARThUR M. SACKLer GALLERY/FREER GALLerY OF ART

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<th>APPLICATION OF OPERATING RESOURCES</th>
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ABSTRACT - The Arthur M. Sackler Gallery was founded in 1982 (opened to the public in 1987) to house a gift of Asian art from Dr. Arthur M. Sackler and to develop an active program of loan exhibitions. The Freer Gallery of Art, founded in 1906 (opened to the public in 1923) as the first art museum of the Smithsonian Institution, had its origin in Charles Lang Freer's gift of Asian art and specialized collection of American art. Both museums actively seek to study and celebrate the historical and contemporary achievements of the arts of Asia.

Administered by a single staff, the combined resources of the Freer and Sackler galleries form an important international center dedicated to ongoing collection, preservation, study and exhibition of Asian art, as well as to educational programs that increase public awareness. While the Freer Gallery neither lends objects nor exhibits works borrowed from museums or individuals, the Sackler Gallery both lends from its collections and borrows works to augment its own holdings.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Arthur M. Sackler Gallery and the Freer Gallery of Art. The Institution requires $208,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - The Sackler and Freer galleries both focus on the artistic traditions of Asia. The Sackler Gallery extends this focus to the present day, embracing a wider range of media and artistic expression, while the Freer Gallery emphasizes the major historical artistic traditions from the beginnings of history through the 19th century. In addition to the program on American art and its interrelationship with Asian traditions carried out at
the Freer Gallery, the major goal of the Freer and Sackler galleries together is to expand both knowledge and appreciation of Asian artistic traditions through exhibitions, education, research, conservation, and acquisitions. In addition, the galleries, with the aid of in-depth public programs related to exhibitions, provide wider cultural and physical contexts that aid in understanding the forms and complexities of Asian art. A continuing calendar of public programs explores both the living arts of Asia and in-depth aspects of individual Asian societies.

**Exhibitions** - Exhibitions provide the primary link between the public and the diverse cultures of Asia. Exhibitions at the Sackler Gallery draw from public and private collections, both domestic and foreign, and from the Gallery's own collections. Eight new exhibitions are in development for FY 1999, including "Roy Lichtenstein: Paintings in the Chinese Style," "Devi: The Great Goddess," and "Treasures from the Royal Tombs of Ur." In addition, six exhibitions are already in planning for FY 2000 that will include a major overview of modern Indian art, an exhibition organized around music in Bronze Age China, and selections from the Gallery’s Vever Collection of Persian and Indian painting.

At the Freer, planning and development are currently underway for twelve exhibition changes scheduled for FY 1999 that will include a major exhibition of new acquisitions, many of which have been given in honor of the Freer’s 75th anniversary. Other exhibitions at the Freer continue to include presentations that draw from the rich resources of the Gallery’s collections. In addition, more than a dozen exhibition changes are anticipated for FY 2000.

**Education** - The Education Department develops curriculum materials in a variety of media that are related to the national collections and loan exhibitions and are distributed nationally. Public programs for both galleries reach out to varied and diverse audiences with programs that expand and enhance the collections and exhibitions by means of film, family programs, Asian music and dance, chamber music, and lectures. Teacher workshops and in-service programs are conducted locally and nationally. An educational website is frequently used and teacher materials are added to it on a regular basis.

**Research** - The Freer and Sackler galleries share research staff and support facilities that together constitute an international center for advanced scholarly research in Asian art, as well as in specific areas of
American art in the Freer Gallery. Research provides the basis for exhibitions, publications, and collections acquisitions. The galleries disseminate research results to the public through lectures, symposia, collection research files, monographs, exhibitions and exhibition catalogues, gallery guides, and brochures.

**Conservation** - Treatment of the collection continues in order to ensure and improve the physical well-being of the objects. Departmental research, which uses scientific methods to determine and explain the origins and physical nature of works of art, is carried out in tandem with the galleries' overall research effort and to aid in the care and treatment of the collections.

**Collections** - In FY 1998, the two galleries together acquired 616 objects for their collections. Among these were an important collection of eighty Khmer 12th-13th-century ceramic vessels, a 17th-century Turkish cenotaph cover of silk-satin fabric, and a rare 7th-century silver dish from Sogdia in Central Asia.

**Publications** - The publications program of the Freer and Sackler galleries encompasses exhibition-related books and catalogues, *Asian Art & Culture* (a collateral book series), Occasional Papers (a series of substantial scholarly papers), collection catalogues, educational materials such as *Japan: Images and Words* (for teachers), a Calendar of Events, and numerous brochures and gallery guides.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support to defray the costs of research, collection acquisitions, and expenses related to the membership program. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects. Fundraising helps create new and increased sources of funding from the private sector.
CENTER FOR FOLKLIFE PROGRAMS AND CULTURAL STUDIES

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The Center for Folklife Programs and Cultural Studies (CFPCS) conducts scholarly research and public programs that promote understanding and continuity of traditional grassroots regional, ethnic, tribal, and occupational heritage in the United States and abroad. The Center maintains the Ralph Rinzler Folklife Archives and Collections. It produces the annual Smithsonian Folklife Festival; Smithsonian Folkways Recordings; documentary films, videos, and print publications; training programs and educational materials; and museum and traveling exhibitions. The Center cooperates with Federal and state agencies to advance the Nation’s interest in cultural matters.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Center for Folklife Programs and Cultural Studies. The Institution requires $49,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - Research - Research projects document and study the continuing practice of local traditions among diverse communities in contemporary society. Current projects examine the relationship between culture and grassroots economic development; cultures of immigrants to the United States; and cultural traditions in Wisconsin, the Mississippi Delta, New Hampshire, and United States/Mexico borderlands. Center scholars and fellows pursue research on American regional music; American craftspeople; the cultural impact of technological change; urban Latino culture; and African American, Asian American, and Native American traditions.
Smithsonian Folklife Festival - The Smithsonian Folklife Festival, an annual two-week festival held on the National Mall since 1967, educates a broad public about American and human cultural heritage and encourages tradition bearers by giving national recognition to their artistry, knowledge, and wisdom. The Festival provides a national and international model for the research-based presentation of cultural traditions. Over one million people visit the Festival each year, and millions more are reached by media coverage. In FY 1998, the Festival featured Wisconsin, the Rio Grande Basin, the Philippines and Philippino-Americans, the Baltic Nations and Baltic Americans. In FY 1999, the Festival will feature New Hampshire, Romania, South Africa, and a larger Rio Grande Basin program.

The Center collaborates with economic development, tourism, culture, and education departments of participating states to develop Festival programs and remount them "back home." These programs catalyze local cultural efforts and include the development of educational materials and the sharing of archives.

Archives and Collections - The Ralph Rinzler Archives and Collections contain audiotapes, records, videotapes, photographic images, film, and paper files documenting cultural traditions from all parts of the United States and most regions of the world. Holdings include the original master recordings of Woody Guthrie performing *This Land is Your Land*, and original master tapes of Dr. Martin Luther King, Jr., as well as speeches and songs of major cultural importance. The collection contains documentation of music, occupational lore, family folklore and immigration stories. The Rinzler Archives contain research documentation for the Festival, as well as sound recordings from Folkways and other recording companies.

Smithsonian Folkways Recordings - Folkways produces documentary recordings of American and worldwide music, performance, and verbal arts for retail and educational markets. Folkways includes the recordings of such American icons as Woody Guthrie, Leadbelly, Sonny Terry, Josh White, Mary Lou Williams, Mahalia Jackson, Bob Dylan, Albert Einstein, Margaret Mead, Langston Hughes, and thousands of others. In 1998, Folkways received two Grammy awards for the *Anthology of American Folk Music* and a nomination for best traditional album. The U.S. Postal Service issued four stamps honoring Folkways musicians.
**Education** - The Center develops curriculum materials and offers teacher training for understanding American cultural traditions. Teacher and student guides, recordings, and videotapes are developed in partnership with state education departments and professional associations. In FY 1998, multimedia education guides on Iowa folklife were distributed to 1200 schools in that state. A multimedia kit on traditions of the Mississippi Delta will be distributed in FY 1999.

The Center produces numerous documentary films and videos. The Smithsonian Folklife Studies series consists of scholarly monographs coupled with documentary films, generally released to colleges and universities. Videos such as *Wisconsin Powwow* and *Workers of the White House* are distributed to schools and aired on public television. Books by Center staff explore the theories and methods of cultural heritage presentation and preservation.

**Traveling Exhibitions** - The Center cooperates with the Smithsonian Institution Traveling Exhibition Service to produce modest traveling exhibitions developed from research and Festival programs. Exhibitions on African American sacred sound, the music of Woody Guthrie, and Maroon cultures of the Southern United States and the Caribbean are traveling in 1998. A major exhibition, "Spirited Objects," will tour several U.S. cities in 2000.

**NONAPPROPRIATED RESOURCES** - General trust funds provide support for salaries and benefits of personnel, fundraising, and general program support. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects. Income from sales of Smithsonian Folkways Recordings pays staff salaries and related costs, and supports additional programming.
COOPER-HEWITT, NATIONAL DESIGN MUSEUM

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - Cooper-Hewitt, National Design Museum explores the creation and consequences of the designed environment. Design, a process of shaping matter to a purpose, is a fundamental activity. The National Design Museum investigates the structures and effects of these products of design and their roles as forces for communication and change. The Museum is interested in all aspects of design, including urban planning, architecture, industrial design, landscape design, interior design, textiles, advertising, and graphic arts. It is a public trust founded on the principle that understanding the past and present will shape the future. Today the scale and pace of change require a new understanding—one that recognizes that individuals, societies, and the natural environment are linked through design.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for Cooper-Hewitt, National Design Museum. The Institution requires $95,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - Cooper-Hewitt, National Design Museum, is the only museum in America devoted exclusively to historical and contemporary design. The Museum pursues its mission through exhibitions, publications, provisions for collections study, research, as well as educational programs for design professionals, the adult public, and schoolchildren. In addition, the Museum jointly offers, with the Parsons School of Design, a master's degree program in the history of decorative arts.

Renovation - In June 1998, the Museum celebrated the completion of the $20 million renovation project with a grand reopening of the entire
building complex to the public. The four-year project makes the Museum facilities and collections more accessible to the general public and is a model for accomplishing significant accessibility improvements in historic buildings.

Exhibitions – Highlights of the Museum’s FY 1998 schedule include “Design for Life: A Centennial Celebration,” which was formulated as an exposition of the Museum’s mission. “The Jewels of Lalique” brought together more than 150 splendid pieces of jewelry gathered from museums and private collections around the world. “Fountains: Splash and Spectacle” featured drawings, photographs, video, and text panels to explore the design, architecture, function, and meaning of fountains from the Renaissance to the present. “Under the Sun: An Outdoor Exhibition of Light,” which opened on the summer solstice, explored solar energy as a catalyst for practical and visionary design.

“Opening Our Doors,” an exhibition that was timed to coincide with the opening of the Museum’s new Design Resource Center, showcased new acquisitions from each of the Museum’s curatorial departments (Drawings and Prints, Textiles, Wallcoverings, Applied Arts and Industrial Design) and the Library. “Concerned Theatre Japan,” co-sponsored by and on view at the American Institute of Graphic Arts, explored the vibrant counter-culture of Japan in the 1960s and 1970s.

Publications - During FY 1998, the National Design Museum produced three exhibition-related books: Design for Sports: The Cult of Performance edited by Akiko Bush; Graphic Design in the Mechanical Age: Selections from the Merrill C. Berman Collection by Deborah Rothschild, Ellen Lupton, and Darra Goldstein; and Fountains: Splash and Spectacle, Water and Design from the Renaissance to the Present edited by Marilyn Symmes. The Museum continues to develop and modify its website and this Spring won a “High 5” design award.

Collections Activity - More than 535 objects were added to the collections in FY 1998. Highlights included a group of Weimar ceramics, an embroidered Portuguese bedcover (c.1600), and a group of Nancy McClelland wallpapers. A total of 124 objects were loaned to a variety of institutions for exhibition, conservation, and study purposes and 188 objects were borrowed for exhibition from museums and private lenders.
Educational Programs - The conference Preserving the Architecture of Cuba featured an international roster of speakers and brought Cubans and Cuban Americans together to discuss their shared concern for Cuba's architectural heritage. School program highlights include the very successful Studio After School Programs that gave New York City high school students opportunities to work with designers at MTV and The Gap. The Museum continues to serve over 4000 elementary, high school, and university students through free guided exhibition tours each year. In the Summer of 1998, eight Peter Krueger Interns and a Lippincott & Margulies Intern worked in a variety of Museum departments. The Museum also hosted a Smithsonian Minority Intern and a Volunteer Intern.

Research - The Museum's Library receives approximately 250 queries per month from scholars, private individuals, designers, and corporate interests. About 2000 people visit the Library each year. The Museum named the ninth annual Peter Krueger-Christie's Fellow during FY 1998 to conduct research on Jean-Baptiste Huët's graphic work related to the decorative arts.

NONAPPROPRIATED RESOURCES - The Museum's General Trust funds are generated from membership, Museum Shop sales, admissions, special events and unrestricted donations, and they support exhibitions, publications, and general operating expenses.
HIRSHHORN MUSEUM AND SCULPTURE GARDEN

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The Hirshhorn Museum and Sculpture Garden (HMSG) was established as the Smithsonian’s museum of modern and contemporary art by Public Law 89-788, signed on November 7, 1966. While the nucleus of the collection remains Joseph Hirshhorn’s original gift, it has been greatly enriched by additional gifts from Mr. Hirshhorn and the 1981 bequest of art he had collected since 1966. Other benefactors continue to give works to the Museum. Purchases made from funds provided through appropriations, the Smithsonian’s Trust funds, Mr. Hirshhorn, other private donors, and restricted-use sales from the permanent collection have continued to strengthen the collection and emphasize its contemporary character. Museum programming features works from the collection, special exhibitions, and a wide variety of public programs.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Hirshhorn Museum and Sculpture Garden. The Institution requires $152,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - In addition to presenting exhibitions, the Hirshhorn Museum and Sculpture Garden manages, conserves, exhibits, and publishes its collection. HMSG also acquires new works for the collection and develops public programs for a broad audience of all ages. A new Director of Education Programs will be formulating an education and public program plan for 1999 and beyond.

Exhibitions - Two major special exhibitions will be presented in FY 1999. The first, which has been organized by the Museum of Modern Art in New York City and scheduled for the fall of 1998, is “Chuck Close,” an
exhibition of the celebrated New York portraitist. In addition to appearing at the Hirshhorn, this exhibition is being presented at the Museum of Contemporary Art in Chicago and the Seattle Art Museum. The second exhibition, which the Hirshhorn will mount during the summer of 1999, is "Brice Marden: Works of the 1990s," a show organized by the Dallas Museum of Art which is devoted to the artist’s abstract paintings and works on paper.

During the winter months, a major renovation of the exhibition galleries’ lighting system, carpeting, and wall construction will mean that no major special exhibition will be on view. However, the galleries will reopen in early spring with a rehanging of the permanent collection in connection with the Museum’s 25th anniversary.

In addition to the major special exhibitions, Juliao Sarmento, Sam Taylor-Wood, and Shazia Sikander will be presented in the Museum’s ongoing Directions series of younger or less-established artists.


The Museum began using The Museum System (TMS), a new database developed in collaboration with other Smithsonian art museums, to share collections management information throughout the Institution and with the public. TMS will enable users to have online access to selected information on the Smithsonian’s art collections.

Public Programs - To increase visitor appreciation and understanding of modern and contemporary art, the Museum presents lectures, a film program, and a wide variety of printed materials including catalogues, brochures, and extended wall labels. Highlights in FY 1998 included the publications Stanley Spencer: An English Vision and (authored by the Hirshhorn) A Garden for Art: Outdoor Sculpture at the Hirshhorn Museum. The Spencer work was published in conjunction with the exhibition of the same name that opened in the fall of 1997 and in association with The British Council and Yale University Press. The sixth annual Mordes Lecture in Contemporary Art will feature Mark Rosenthal, Curator at the Guggenheim Museum.
NONAPPROPRIATED RESOURCES - General Trust funds provide support for salaries and benefits of personnel and related travel costs. In addition, these funds provide general support for research activities, education and public programs, and fundraising. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, such as collections acquisitions, public programs such as the Young at Art program for children and families, and exhibitions such as the Fall 1998 exhibition, "Stanley Spencer: An English Vision" (which received support from Howard and Roberta Ahmanson and Fieldstead and Company), and the contemporary "Directions" series of exhibitions.
NATIONAL AIR AND SPACE MUSEUM

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The mission of the National Air and Space Museum (NASM) is to memorialize the national development of aviation and space flight. It serves as the repository for, preserves, and displays aeronautical and space flight equipment and data of historical interest. The Museum provides educational materials and performs the necessary research for the study of aviation and space flight and their related technologies. In addition to its Mall location, NASM maintains the Paul E. Garber Preservation, Restoration and Storage Facility in Suitland, Maryland. By November 1998, design work will be completed on the Dulles Center in Virginia which will house the Museum’s collection and restoration facilities and enable the Museum to exhibit much more of its collection including its largest aircraft and spacecraft.

For FY 2000, the Smithsonian is seeking an additional $2,000,000 in support of collection management in preparation for the opening of the new Dulles Center extension in 2002. The Institution requires $523,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - In FY1998, NASM had over nine million visits and its website is accessed over 150,000 times per day.

Research - During FY 1998, historical research at the Museum resulted in improved documentation and updated information on the archival collections. A seminar in May 1998, "Security No More: The Security Implications of Global Transparency," highlighted the security implications of remote sensing satellites. Oral and video history interviews were held with pioneers in aviation and space. Published scientific results ranged from the use of remote sensing in conservation monitoring in Brazil to the formation of volcanoes on Venus.
**Collections Management** - During FY 1998, a new Collections Management Information System was selected and installed. Implementation of the new system, including collections documentation and barcoding, will continue in FY 1999.

**Preservation and Restoration** - The five major aircraft projects on the restoration shop floor are the Aichi Seiran, the Hawker Hurricane, the SA-2 surface to air missile, the S-1 Pitts Special "Little Stinker," and the Nieuport 28. The engine preservation project is approaching 50 percent completion with 115 of 240 engines mounted and preserved.

**Exhibitions** – During FY 1998, "Star Wars: The Magic of Myth," examined the mythology beneath the "Star Wars" story. The Venus section of "Exploring the Planets" was updated to include recent images of the surface of Venus. The "National Transportation Safety Board" exhibition examined how the NTSB investigates aviation accidents and fosters transportation safety. Two exhibitions that opened in the June1998, are "Business Wings," which looks at business aviation, and "Earth Today," a computer-generated, continually updated image of the Earth. "Arriba: The History of Flight in Mexico, Central America, South America and the Caribbean," examines aviation in Latin America during the first century of flight.

**Publications and Electronic Outreach** - In FY 1998, the Museum published *Aircraft of the National Air and Space Museum*, edited by F. Robert van der Linden. *Space: Discovery and Exploration*, edited by Martin J.Collins and Sylvia K. Kraemer, was reprinted. The Museum supported publication of *The Golden Age Remembered: U.S. Naval Aviation, 1919-1941*, edited by E.T. Wooldridge. New titles in the Smithsonian History of Aviation include *Space and the American Imagination* by Howard E. McCurdy, and *Eye in the Sky: The Story of the CORONA Spy Satellites*, edited by Dwayne A. Day, John M. Logsdon, and Brian Latell. *Blankets of Fire: U.S. Bombers over Japan during World War II*, by Kenneth P. Werrell, and *The Once and Future Moon*, by Paul D. Spudis, were reprinted in paperback. The NASM Archival Videodisc Number 7, containing 100,000 air and space images will be published this year. The Museum’s website continues to receive 4.5 million hits per month. The site includes images, specifications for over 200 aircraft in the collection, and a recently developed online educational activity on planetary sciences.
**Education** - School outreach efforts expanded to include pre-visit guides for “Exploring the Planets,” “Looking at Earth,” and “The Black Wings” exhibitions, and the Planetarium. New family programs including Family Nights at the National Air and Space Museum, Kite Day, Space Day, and a selection of smaller workshops were offered.

**Dulles Center** - The new Center’s design is 95 percent complete, and the Commonwealth of Virginia agreed to fund the road infrastructure. The 50-year lease with the Metropolitan Washington Airports Authority is nearing signature, and fund raising for construction is well underway.

**EXPLANATION OF PROGRAM CHANGE** – The Institution requests an increase of $2,000,000 in FY 2000 in support of collection management in preparation for the opening of the new Dulles Center extension in 2002.

The National Air and Space Museum – Dulles Center will house, display, and provide a facility for restoration and preservation of the majority of the Smithsonian Institution’s air and space-related artifacts. At the Dulles Center, these artifacts will be accessible to current and future generations of Museum visitors and will form the basis for aviation and space education programs. The new Dulles Center will provide museum-quality housing for objects in NASM’s collection not on public display on the Mall and provide public access to most of these collections.

The Dulles Center’s most urgent need is to prepare the collection for transfer to the new facility. At this time there are thousands of artifacts disassembled and packed in crates that need to be inspected, inventoried and conserved. This funding will provide needed funds to begin this work in earnest.

The requested funds will be used to obtain expertise and equipment required for air and space collections management and restoration. The initial focus will be to inventory, document and ascertain the stored collection’s status. In conjunction with that effort will be the conservation of key air and space-related artifacts planned for display at the Dulles Center.

The Dulles Center is vitally needed to prevent further deterioration of one of the world’s most valuable and irreplaceable collections of artifacts representing the history of aviation and spaceflight. This initial investment
in collection management and preservation will ensure that the national air and space treasures will be available to future generations.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for research activities, educational programs, exhibitions, and fundraising, including the associated personnel salaries and benefits. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, such as research, exhibitions, collections care, and education programs. The Dulles Center capital campaign is charged with raising the funds to build the museum extension. Government grants and contracts provide support for research and other scientific activities.
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**ABSTRACT** - As a leading center for the visual arts of Africa, the National Museum of African Art (NMAfA) fosters and sustains through exhibitions, collections, research, and public programs an interest in and an understanding of that continent’s diverse cultures. The Museum accepts into its collections and exhibits the ancient and contemporary art of the entire continent.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Museum of African Art. The Institution requires $123,000 for Necessary Pay for existing staff funded in this line item.

**PROGRAM** - The National Museum of African Art educates and instills an appreciation for the cultures and visual arts of Africa through the acquisition, care, research, exhibition, and interpretation of works of art in the context of African history, culture and aesthetics.

**Research** - In FY 1998, the Museum conducted research on proposed acquisitions and on the recently acquired collection of African photography by South African photographer, Constance Stuart Larrabee, in preparation for an exhibition of her work. Installation of a new automated collections information system, The Museum System (TMS), provided a significant research resource to staff and outside researchers. Staff conducted an analysis of deterioration in recently acquired Ethiopian icons and development of a process which dramatically restored these important objects to their original brilliant color.
**Collections Management** - During FY 1998, NMAfA converted its collections information to TMS with the addition of image capability and future public access to both data and images. The Eliot Elisofon Photography Archives had preservation negatives made for 322 vintage prints and continued its inventory of Archives collections in conjunction with data entry into the Smithsonian Institution Research Information System. The Archives added about 8,000 images of the permanent collection, installations and events to its collection.

**Collection Acquisitions** - In FY 1998, the Museum added 51 important objects to its permanent collection through gift and purchase. Highlights among these acquisitions were a rare Mbete reliquary figure from Gabon, collected around 1930; two fine Urhobo and Igbo figures from Nigeria; *Emandulo, Re-Creation*, a composite of 12 artists’ work created in Johannesburg, South Africa; and a superb sculpture, *the Ancestors Converged Again*, 1995 by Ghanaian artist, El Anatsui. The Elisofon Archives acquired through donation 606 vintage black and white negatives taken in Ghana in the 1960’s and eighty 35-millimeter color transparencies of contemporary images from Mali. The Archives purchased an historic album (c. 1900) with 170 prints of Ugandan and Kenyan subjects.

**Exhibitions/Public Programs/Education** - Among the nine temporary exhibitions on view during FY 1998 was “The Poetics of Line: Seven Artists of the Nsukka Group,” which showcased the work of some of the leading members of a group of artists who have studied or taught at the University of Nigeria, Nsukka. “Olowe of Ise: A Yoruba Sculptor to Kings” was an exhibition of more than 30 major works by a known artist considered to be the finest carver of the Yoruba people of Nigeria in the 20th century. Smaller exhibitions of kinetic sculpture, African ceramics, a carved ivory tusk, recent gifts to the collection, furniture derived from African design, and South African photography augmented the Museum’s four permanent gallery installations.

The Museum complements its exhibition program and interprets its collection through a lively program of gallery tours, school programs, workshops, outreach programs, music, film and storytelling. In FY 1998, NMAfA offered nearly 1,500 public programs serving 37,000 individuals. In conjunction with the Nsukka exhibition, the Museum presented an international symposium which was attended by over 200 participants. For the Olowe exhibition, the Museum developed a popular hands-on activity
center which was, for the first time, incorporated directly into the exhibition area. The Museum also refined and expanded its website in FY 1998 to include electronic versions of all its exhibitions.

Publications - With the Smithsonian Press, in FY 1998 the Museum co-published *New Traditions from Nigeria: Seven Artists of the Nsukka Group* which was related to the “Poetics of Line” exhibition. In conjunction with the Olowe exhibition, NMAfA published a major monograph, the first catalogue *raisonne* of a traditional African artist. The Museum produced extensive gallery guides for all of its new exhibitions, including a family guide for both the Nsukka exhibition and the permanent installation, “Images of Power and Identity.” NMAfA also produced program notes for its series of music programs and for several other in-gallery public programs. The Museum’s education programs brochure, published annually, has wide local and national distribution.

**NONAPPROPRIATED RESOURCES** - General Trust funds provided support for the Director’s salary, benefits, and travel, as well as general operations, exhibitions and related public programs, collections acquisitions, and fundraising. The Smithsonian’s Collections Acquisitions Program provided funds for some of the Museum’s new collections purchases, and the Special Exhibitions fund supported both the Nsukka and Olowe exhibition installations. Support for the Nigerian Art Symposium also came from general Trust funds. Donor/Sponsor Designated funds provided support for the costs of publications and collections acquisitions.
### ABSTRACT

The National Museum of American Art (NMAA) is the Nation’s museum dedicated to the arts and artists of the United States from colonial times to the present. The Museum promotes art as a source of enrichment for the layperson and scholar alike and serves as a resource in the broadest possible sense for American visual arts. The Museum’s programs make American art available to national audiences and beyond, as well as to those who visit its two historic landmark buildings in Washington DC. Outreach takes the form of circulating exhibitions, educational materials, publications, automated research resources, and a vast and growing offering of online services which reflect the diversity of the country’s citizenry and art.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Museum of American Art. The Institution requires $303,000 for Necessary Pay for existing staff funded in this line item.

### PROGRAM

NMAA stimulates an understanding of American visual expression in its broadest contexts through interpretive exhibitions, publications, and programs. As a national institution, NMAA explores and serves the heritage of diverse communities in the United States.

### Research

Nineteen scholars engaged in dissertation and advanced research will enjoy research privileges through fellowships awarded for the 1998-1999 academic year. Sarah Burns, who authored the 1996 publication *Inventing the Modern Artist: Art and Culture in Gilded Age America*, was awarded the Charles C. Eldredge Prize for outstanding scholarship in the field of American art. During 1997 the public made over

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### TABLE: APPLICATION OF OPERATING RESOURCES

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65,000 informational searches in the Art Inventories, one of the Museum’s art research databases available through the Smithsonian Institution Research Information System (SIRIS). In FY 1998 the Museum added to SIRIS the catalogue of the Peter A. Juley and Son Collection, representing 127,000 photographic negatives of American art and artists, which is now available for online public inquiry.

Collections – The Museum’s collection of approximately 38,000 objects encompasses painting, sculpture, graphic art, photography, and folk art, as well as modern crafts at its Renwick Gallery. NMAA’s most important acquisition during the past year was Nam June Paik’s Megatron/Matrix, a 215-monitor video wall 33 feet wide illustrated in the N.Y. Times as a work for the 21st century. Other objects acquired in FY 1998 include significant works of photography by Eadweard Muybridge, Laura Gilpin, Arthur Wesley Dow, and Vik Muniz. Several works by Latino artists including Patssi Valdez and Carlos Alfonzo, Miriam Schapiro’s seminal work entitled Dollhouse, and an important painting by the popular artist Norman Rockwell were also acquired. Folk art acquisitions include a late 19th century Hispanic textile and a rare crucifixion sculpture, both from the Southwest. NMAA also acquired a number of key posters in conjunction with the “Posters American Style” exhibition. Among the Renwick’s notable acquisitions were ceramics by Michael Frimkess, a tapestry by Helena Hernmarck, and a glass piece by Karla Trinkley.


Publications – The Museum published two major catalogs in 1998. Skilled Work, co-published with Smithsonian Press, documents the nationally acclaimed collection of craft at the Renwick Gallery, and Posters American Style was the companion book for the exhibition which was organized by NMAA. The Museum reprinted Modern American Realism: The Sara Roby Foundation Collection, another catalog that treats an important segment of the NMAA collection and complements a new tour of those works.
National Outreach and Education – The Museum’s largest outreach project entitled “Save Outdoor Sculpture!” continues with a new goal of preserving 10,000 sculptures for the new century. Volunteers around the country have now listed over 32,000 sculptures in NMAA’s Inventory of American Sculpture, nearly half of which need treatment or maintenance. In July 1998, an award to preserve the Francis Scott Key Monument in Baltimore was the first in a series of grants to restore individual sculptures. Awards were also made for conservation of sculptures in New York City, Washington DC, Chicago, Houston, Miami, Detroit, and Los Angeles. Extensive programming continued to attract thousands of visitors to NMAA, including tours, demonstrations, lectures, films, concerts, and symposia, as have monthly hands-on Art Stop family programs.

NONAPPROPRIATED RESOURCES – General Trust funds provide support for salaries and benefits of personnel, fundraising, and other related costs. Donor/Sponsor Designated funds provide support for specific programs and projects. Exhibitions and education programs receive support from individuals, foundations, and corporations.
NATIONAL MUSEUM OF AMERICAN HISTORY

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<th>APPLICATION OF OPERATING RESOURCES</th>
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ABSTRACT - The National Museum of American History (NMAH) dedicates its collections and scholarship to inspiring a broader understanding of our nation and its many peoples. It creates learning opportunities, stimulates imaginations, and presents challenging ideas about the country’s past. This mission statement serves as a guide to NMAH staff as it develops educational programs, opens new and updates existing exhibitions, conducts research, and enriches and cares for the collections.

This line item also includes the National Postal Museum (NPM). Its mission is to preserve and interpret the material and intellectual heritage of postal communications and philately through its collections, exhibits, publications, and educational programs.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Museum of American History or the National Postal Museum. The Institution requires $783,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - The following are highlights of the National Museum of American History’s recent achievements.

Research and Publications - Extensive research led to many important publications in FY 1998, including: the Paul Bunge Prize winner for Instruments of Science: An Historical Encyclopedia edited by Robert Bud and Deborah Jean Warner; Design for Victory: World War II Posters on the American Home Front by William L. Bird, Jr. and Harry R. Rubenstein; Going Underground: Tunneling Past, Present, and Future edited by Jeffrey K. Stine and Howard Rosen; America’s Money – America’s Story by
Richard G. Doty; and the entire Winter 1997 issue of *Caduceus: A Humanities Journal for Medicine and the Health Sciences*, which was devoted to *150 Years of Collecting Medical History at the Smithsonian Institution*, edited by Ramunas Kondratas.

**Collections** - In FY 1998, the Museum received objects through donation, purchase, and bequest. One of the most significant acquisitions was the rare Antonio Stradivari and Jacob Stainer Quartets donated by Dr. and Mrs. Herbert Axelrod. The Museum also acquired an 18th-century surveyor’s telescopic level made by the premier American instrument maker Benjamin Rittenhouse and a rich collection of costumes, scripts, posters, photographs, and playbills from Broadway musicals. It also received a large collection of artificial hearts and kidneys.

**Collections Management** - In FY 1998, asbestos abatement for NMAH Silver Hill Building 17 was completed. Over 100,000 objects were decontaminated and relocated in preparation for Building 17’s renovation, while 2,500 objects were moved to the Museum Support Center. The Museum also introduced a newly streamlined and effective outgoing loan process. NMAH made much progress on its new, multimedia collection information system by training collections staff and using the system for new data entry. Staff also let contracts for the conversion of large numbers of electronic and manual records.

In FY 1999, the *Star Spangled Banner* will be taken off display for much needed conservation work. A special on-site laboratory will house the flag while it undergoes extensive treatment. Visitors will be able to view the ongoing work and see a temporary exhibit addressing the conservation effort. This joint publicly/privately funded millennium project marks the beginning of the Museum’s Blueprint program, a ten-year, multi-million dollar effort to tell a more integrated story of American history within the Museum, provide new learning opportunities, and showcase more of American History’s collections.

**Exhibitions and Public Programs** - The Museum’s FY 1998 public programs reached out to ever larger audiences. The NMAH website, while receiving millions of hits, won a national award for the interactive program *You Be the Historian*. An innovative and critically acclaimed new virtual display, *Revealing Things*, provides access to the Museum’s holdings. The Museum’s Lemelson Center for the Study of Invention and Innovation hosted the Colors of Invention series, exploring the role invention plays in
the technology and aesthetics of created colors through exhibitions, electronic field trips, lectures and workshops. The Duke Ellington Youth Festival and the Kids Learning History Conference involved thousands of school children and teachers, locally and nationally, in the development and implementation of model teaching programs. The Museum also launched a new series of programs on Latino traditions, in conjunction with two new exhibitions focusing on the historical development of Latino communities in North America.

In FY 1998, exhibitions continued to explore the development of American culture and identity with shows such as “Wade in the Water,” a major exhibition on the history of African American sacred music traditions, and “Ella Fitzgerald: First Lady of Song,” bringing renewed attention to the accomplishments and artifacts of one of America’s greatest singers. “Exploring the Internet” and “America’s Clothespins” showed visitors the intersections between technology, creativity and inventiveness as well as the rapid changes technology brings about. “A Collector’s Vision of Puerto Rico” represented portions of the Museum’s new Vidal collection of Puerto Rican folk art. “Between a Rock and A Hard Place” helped visitors gain a better understanding of the history of sweatshops in America and of efforts underway to improve conditions in the workplace.

In FY 1999, the Museum will open two new permanent exhibitions. “On Time” considers ways Americans have measured, used, and thought about time in the last 300 years. “Communities in a Changing Nation” explores what the promise of America meant to different communities pursuing freedom, equality, democracy and opportunity in the 1800s. In FY 2000, the Museum plans to open a new Welcome Center. In FY 2000, funds from the exhibition renewal pool requested in the Institution-wide Programs would help to design updated exhibits.

**National Postal Museum** - The following are highlights of recent activities at National Postal Museum. In FY 1998, six new exhibitions were installed. “Our Town: New Deal Post Office Murals” uses selected studies presented for consideration as possible post office murals to examine the importance of New Deal-era murals in countless small communities across the country. “Mail to the Chief,” guest curated by Congressman Joseph Pitt, depicted all of the known stamp sketches produced by President Franklin Roosevelt during his Presidency. “Manning the Post” examines the role of America’s first female postal employee, Mary Katherine Goddard,
who served as the postmaster of Baltimore, Maryland, from 1775 to 1789. Two new publications were produced, including *Letters From Home*, an activity guidebook for ESL classrooms. The Museum developed guidelines for a graduate predoctoral fellowship program and established an international Council of Philatelists to advise on stamp-related projects and publications.

**NONAPPROPRIATED RESOURCES** - National Museum of American History General Trust funds provide support for salaries and benefits of personnel. In addition, these funds provide general support for research activities, conservation, publications, exhibitions, fundraising, and acquisitions. Donor/Sponsor Designated funds provide support for specific programs and projects, such as collections maintenance, special events, education programs, acquisitions and exhibitions. Government grants and contracts provide support for collections, exhibitions, and research.

The National Postal Museum receives annually major operating and program support from the United States Postal Service. These funds provide support for salaries and benefits of Trust Fund employees, utilities and maintenance, security services, exhibitions, publications, fundraising, conservation, and public programs. Donor/Sponsor Designated funds provide support for specific programs and projects, such as special events, education programs, acquisitions and exhibitions.
## ABSTRACT

- The National Museum of the American Indian (NMAI), established in 1989 by Public Law 101-185, recognizes and affirms to Native American communities and the non-Native American public the historical and contemporary cultures and cultural achievements of the native peoples of the Western hemisphere. This is achieved through development and use of its collections and nationwide public programming, research, and exhibitions executed in consultation with native peoples. The mission of NMAI states that the Museum has a special responsibility, through innovative public programming, research, and collections, to protect, support, and enhance the development, maintenance, and perpetuation of Native American culture and community.

NMAI operates administrative offices in Washington DC, an exhibition center in New York City at the George Gustav Heye Center (GGHC) in the Alexander Hamilton U.S. Custom House, and the Research Branch located in the Bronx, New York. The Research Branch temporarily houses curatorial offices, a conservation laboratory, and most of the Museum’s collections. Beginning in January 1999, NMAI’s collection of one million artifacts will be relocated from New York to a new state-of-the-art facility now under construction in Suitland, Maryland. This Cultural Resources Center (CRC), due to open in late 1998, will house reference, collections, and program support for NMAI. A museum building on the Mall is planned to open in 2002. NMAI will have two major projects under way concurrently (in addition to normal operations): the projected five-year relocation of the collections, and the design of programs and exhibits for the opening of the Mall Museum.

For FY 2000, the Smithsonian requests $7,992,000 and 11 FTEs for programmatic increases associated with the opening of the CRC in
Maryland, moving staff and collections from New York City to the CRC, and
developing exhibitions and beginning operations for the Mall museum of the
NMAI. The Institution requests that the funds for this line item remain
available until expended. These increases are partially offset by one-time
funding ($2,992,000) requested in FY 1999 for CRC equipment needs. The
Institution requires $338,000 for Necessary Pay for existing staff funded in
this line item.

PROGRAM – The Museum of the American Indian, located in New York City,
opened its doors to the public in 1922. On June 24, 1990, the collection
was transferred to the Smithsonian Institution to form the base of the
National Museum of the American Indian. The collection, initiated near the
turn of the century, is one of the world’s largest assemblages of artifacts of
the indigenous cultures of the Western hemisphere.

Collections Management - With the new Cultural Resources Center
nearing completion in Suitland, Maryland, the staff relocation and collections
move is scheduled to begin in January 1999. In FY 1998, staff prepared
equipment specifications for labs and collections storage for the new
building; successfully completed a pilot move of 16,000 objects to test
assumptions; began the conversion of a new collections database; prepared
a request for proposal for contract support for the collection relocation; and
undertook a 100 percent inventory and assessment of the collection’s
physical condition, to be completed this December. In FY 2000, with staff
occupying the Cultural Resources Center and continuing the move of
collections, NMAI will maintain basic services of the CRC and begin
preparing the 8,000 objects required for the Mall opening exhibitions. As part
of the move process, each object will be packed, imaged for inclusion in the
database, and provided with a new barcoded location at the Cultural
Resources Center. The resulting images will be digitized and linked to the
collections database and will become the basis for Internet access to the
Museum’s collections.

Research - Research and content development for the exhibitions at
the Mall museum are continuing high priorities. In FY 1998, planners
finalized conceptual themes and initial content of the three permanent Mall
exhibitions. In addition, curators completed an exhibition on the “Plains
Indians and the Horse,” and contributed to the curation of exhibitions at the
Heye Center. NMAI staff also accommodated researchers visiting various
collections. Research needs will significantly increase as Mall exhibition
objects are selected and text is written, and as exhibits change at the Heye
Center.
Acquisitions - In coming years the Museum must move decisively with regard to acquisitions to demonstrate its commitment to living Indian people and artists and to build collections which document the lives of 20th century Native American peoples. It is anticipated that 10 percent of the 8,000 objects in the Mall exhibitions will be contemporary. In order to meet this goal for the Mall building’s anticipated opening in 2002, a systematic acquisition program will be initiated.

Public Programs – The George Gustav Heye Center interprets the NMAI mission through daily gallery tours and demonstrations, elementary and secondary school programs, theatrical presentations, film and video screenings, festivals, symposia, art talks, and community outreach programs. At over 600,000 visits last year, attendance has far outpaced initial expectations with the Heye Center now ranked as the sixth most visited museum in the city. In addition, the interactive Resource Center seeks to remove the Museum’s walls by reaching a global Internet audience through its Conexus link.

Additionally the Community Services Department conducts several artist-in-residence programs for both contemporary and traditional practitioners, as well as museum and research training, internships, technical assistance to tribal museums, and radio projects.

Publications – In 1997-98, the Museum published one recording, Wood That Sings: Indian Fiddle Music of the Americas, two children’s books, Brave Wolf and the Thunderbird, and Coyote in Love with a Star, along with brochures (one in Spanish), rack cards, preview postcards, quarterly calendars, posters, and special books for opening events. Work will continue with the Smithsonian Institution Press on Spirit Capture: Photographs from the National Museum of the American Indian for publication in Fall 1998 (in conjunction with the “Spirit Capture” exhibition). Staff also manage the Museum’s award-winning website.

In FY 2000, NMAI will prepare several books, including a children’s book, recordings and all printed materials and gallery guides for the 2002 opening on the Mall, in addition to publications needed for ongoing activities at the Heye Center in New York and the Cultural Resources Center in Maryland.

Exhibitions – Among the exhibitions presented in the changing galleries at GGHC this year was “Memory and Imagination: The Legacy of
Maidu Indian Artist Frank Day, “a retrospective exhibition developed by the Oakland Museum depicting Maidu folklore and history. Day’s work played a significant role in revitalizing Native American ceremonies in northern California and has had considerable influence on contemporary Native American artists.

Currently under development by NMAI is “Spirit Capture: Native Americans and the Photographic Image.” This semi-permanent exhibition will examine the impact of the history of photography on Native people, and will also showcase NMAI’s extensive photographic archives.

Long-term focus is now on the exhibitions for the NMAI museum on the Mall, opening in 2002. The work encompasses developing and producing exhibits for three long-term galleries, planning the inaugural exhibit for the changing gallery, developing the concept for and producing the open storage exhibitions, and implementing plans for the visitor experience throughout the building. NMAI staff coordinate with the architectural designer on all aspects of exhibit development from concept through production and installation.

National Campaign/External Affairs – Recent accomplishments include raising funds for the Cultural Resources Center and laying the ground work for an endowment at the GGHC. Fundraising and external affairs goals for FY 1999 include raising endowment funds at the GGHC, initiating the first-phase feasibility study for marketing strategies for fund raising for the Mall Museum opening activities, and continuing to support a vigorous membership program that has attracted about 60,000 participants to date.

EXPLANATION OF PROGRAM CHANGE - For FY 2000, the Smithsonian requests $7,992,000 and 11 FTEs for programmatic increases associated with the opening of the CRC in Suitland, Maryland, moving staff and collections from New York City to the CRC ($5,108,000 and 6 FTEs) and opening exhibitions and operations for the Mall museum of the NMAI ($2,884,000 and 5 FTEs). The Institution requests that resources for this line item remain available until expended. These increases are partially offset by one-time funding ($2,992,000) requested in FY 1999 for CRC equipment needs.
The increases requested for FY 2000 are primarily directed at two Museum priorities: (1) improved public access to the collections, and (2) Mall Museum opening needs. Both efforts will increase the availability of Native American artifacts and information about the cultures that the collection represents. The museum-going public, Indian communities and individuals throughout North and South America, and Native and non-native scholars will benefit from this increased access to the Museum’s treasures.

**Collections Move and Cultural Resources Center requirements**

($5,108,000 and 6 FTEs) – The Institution requests $3,257,000 to contract for packing and transportation services for the collections move from New York to Suitland, Maryland and $785,000 to complete the acquisition of furniture, equipment and technology-related equipment for the CRC. This increase assures a fully equipped facility for maintaining the collections and provides the tools for programmatic efforts.

The Institution also requests $459,000 and 4 FTEs to strengthen archives and curatorial operations at CRC with an archivist, collections technician, two staff curators and contracted specialists representing the

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hemispheric scope of the Museum’s collections and research requirements. The Institution also requests $320,000 to address the backlog of cataloging and preservation of the Huntington Library collection (expected to take five years) and for ongoing library operations, including acquisitions of additional materials in support of the programs ($42,000). An additional $100,000 and 2 FTEs will permit NMAI to staff the Resource Center at CRC to provide assistance to visitors and produce reference guides. The Institution requests $145,000 to provide technology capacity to support growing databases and networks, including linkages between NMAI locations.

**Mall Museum Exhibitions and Museum Operations ($2,884,000 and 5 FTEs)** – The Institution requests $2,350,000 for development of exhibitions at the Mall Museum and $534,000 and 5 FTEs for community service and publications activities. An increase of two community service positions and funding will strengthen the relationship between the resources concentrated at the CRC and NMAI’s diverse and widely dispersed constituents. Three publications positions and funding will enable the Museum to develop books and other materials to be available for the public by the Mall Museum opening in 2002.

The increases requested will move NMAI much closer to its goal of providing first-rate care and wide public access for the extensive and significant collections entrusted to it in the legislation of 1989. By continuing the relocation of the collection from New York and providing the needed program and support staff at the CRC, the long-term preservation of the artifact, archive, and library collections will be assured. NMAI will apply current technology to the recording of collections data during this relocation, improve management of the collections, expand security and inventory efforts and make broadly accessible both text and image information for multiple users in on-site and distant locations. Community services staff will help link the CRC’s resources to specific users and encourage collaborative projects. Finally, the funds will help begin the crucial work of producing the inaugural exhibitions and related educational publications and materials that will make NMAI’s collections directly accessible to millions of visitors to the new Mall Museum.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits of personnel, a portion of the National Campaign costs, and specialized program activities. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, including construction of the Mall museum, educational programs, exhibits, and outreach.
APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The National Museum of Natural History (NMNH) enhances the understanding of the natural world and humanity’s place in it. The Museum’s research program studies natural and cultural diversity by collecting and identifying specimens that exist in the natural world and artifacts developed by humans, establishing relationships among them, and explaining the underlying processes that generate, shape, and sustain their diversity. The Museum interprets this scientific understanding to a national audience through research reports, exhibitions, and education programs. The close linkage between research and outreach is a hallmark of the Museum, lending perspective to its research and authority to its outreach.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Museum of Natural History. An increase of $1,600,000 justified under Major Scientific Instrumentation will support the construction of a Field Emission Transmission Electron Microscope Lab. Funds requested under Conservation Biology will support enhanced research activities on vulnerable marine and terrestrial habitats. The Institution requires $1,467,000 for Necessary Pay for existing staff in this line item.

PROGRAM - The National Museum of Natural History is one of the leading international centers for research on natural history and anthropology. More than 100 Smithsonian and 50 affiliated-agency scientists working worldwide in the field conduct research using the Museum’s unparalleled collections and laboratory facilities. Public exhibits at NMNH attract about six million visits annually. Outreach programs, including traveling exhibits, interactive electronic classrooms and field trips, and informational websites serve millions more, nationally and internationally. The Museum is committed to maintaining its intellectual and institutional leadership in its scientific disciplines, to conserving and expanding access to its irreplaceable
collections, to training the next generation of scientists and technicians, to developing and implementing innovative and virtual educational materials and methodologies to expand and enhance public use of its resources, and to continuing its recognition as America’s authoritative source of knowledge of humanity’s place in the natural world.

Research – In order to provide context for issues such as global change and biological diversity, the Museum’s research emphasizes both historical and contemporary approaches. During FY 1998, Museum scientists contributed research and public presentations to the “Year of the Ocean” celebrations, unlocked new discoveries on the origins of life in excavations in China, and provided leadership and critical new insights into a key indicator of earth’s health: the declining populations of amphibians. Museum researchers produce over 600 papers per year; this Spring, NMNH research appeared at least four times in *Science*, either as the main research article, or in the context of another research issue. Increasingly, research is also disseminated through public programs, ranging from exhibitions to remote learning programs. One member of the Paleobiology department is part of a Harvard/Massachusetts Institute of Technology team recently picked by the National Aeronautics and Space Administration as one of 11 groups to form the Institute of Astrobiology, which will focus on research involving the early history of life on Earth, and the possibilities for life on Mars, Europa, and elsewhere. Finally, NMNH established the first Endowed Chair in the history of the Smithsonian Institution, the Herbert R. and Evelyn Axelrod Revolving Chair of Systematic Ichthyology in the Division of Fishes. Museum scientists are frequently called upon as experts by federal agencies ranging from the Federal Bureau of Investigation, where physical anthropologists assist in forensic analysis, to the Department of Interior, where Museum biologists contribute to species inventories and park planning. Research training for future scientists included training of 77 interns, 132 pre- and post-doctoral students, and 55 visiting fellows. The museum is requesting $1.6 million to establish a laboratory, in partnership with the Carnegie Institute and NASA, to analyze extraterrestrial material. This request is addressed under the Major Scientific Instrumentation section.

Collections Management - In FY 1998, approximately 297,000 specimens were added to the Museum’s collections. Among the highlights are a spectacular group of rhodochrosite crystals from Colorado that will go on display in the Janet Annenberg Hooker Hall of Geology, Gems, and Minerals and collections from Ghana including an airplane coffin, toy trucks, and academic dress to be displayed as part of the African Voices Hall scheduled for opening in the Fall of 1999. Installation continued on the transaction management module of the Museum’s Collections and Research Information System, increasing the efficiency by which staff can monitor the
The huge number of incoming and outgoing loans, exchanges, and acquisitions of collection items for research and exhibition. Requirement specifications were also completed for the collection multimedia catalog. Over 24,500 specimens, largely mammalian carnivores, were moved to improved storage at the Museum Support Center; installation of the first phase of compactors for the plant collections was completed, providing needed expansion space; and the insect collections were stabilized and labeled in preparation for the move to the new storage area in the East Court building. In FY 1998 presentations as diverse as a public database on Spring-flowering plants near the District of Columbia and scientific research databases of the United States Antarctic Program undertaken in cooperation with the National Science Foundation were made publicly accessible via the Natural History Web.

Public Programs - The Janet Annenberg Hooker Hall of Geology, Gems, and Minerals, a permanent exhibition which features the Hope Diamond, tells the story of earth sciences from minerals to meteorites through thousands of spectacular specimens, touchable objects, visitor-friendly text, and a variety of videos and computer interactives. Two temporary exhibitions were mounted during FY 1998. "Agayuliqararpui (Our Way of Making Prayer): The Living Tradition of Yup'ik Masks" opened, presenting treasures from the ceremonial heritage of the Yup'ik Eskimo people of Southwest Alaska. "Natural Selections: Museum Photography" by staff photographer Chip Clark, also opened. The Naturalist Center, an educational facility staffed by the museum and temporarily located in Leesburg, Virginia, had the largest school and public visitation ever in its more than 25-year history. During FY 1998, the Natural Partners program, which is developing electronic programming to increase public access to the Museum’s collections and research activities, produced seven electronic field trips including three from the Amazon rainforest, in one of which Secretary of State Madeline Albright participated. The program received two "Tele Awards." Natural Partners also launched Ice Age Summer Camp, its first after-school program with Voyager Expanded Learning. With the help of a grant from IBM, Natural Partners has begun digitizing the NMNH collections. Through another grant from the NASA Stennis Space Center, the program produced its first two Remote Sensing Expeditions: an electronic visit to a hazardous volcano in Peru; and a visit along the ancient trails of early peoples in North America.

In the coming fiscal years three major permanent exhibitions will open: the new Rocks Gallery in November of 1998, the African Voices gallery and Behring Family Rotunda in the Fall of 1999. Temporary exhibitions will include one on "Pomo Indian Basket Weavers" and a major exhibition entitled "Ainu: Spirit of a Northern People." During FY 1999, Natural Partners will produce eight electronic field trips; develop and implement a Mammals in the Schools Program; and with Voyager Expanded Learning, open six new
Museum Schools throughout the United States, and premiere “Why We Remember,” a three-year program on the Lewis and Clark expedition in August.

**Major Facility Expansion and Renovation** - The relocation to the newly completed East Court building will provide space for research and collections activities, public service space for education offices and instructional classrooms, and needed public restrooms. The move will be completed in FY 2000. During FY 1998 and FY 1999, the remainder of the communications equipment will be procured and installed in the building. This effort requires supplemental contract labor and supplies and equipment to assist with the relocation of offices and laboratories. During FY 1999, preparation to move millions of delicate specimens, including insect collections from fieldwork carried out since 1881, will also continue requiring specialized equipment and supplemental contract support. A major capital renewal project is in progress and will continue for a decade. It will provide the Natural History building with a new heating, ventilating, and air conditioning system. Progress will depend upon the prompt occupancy of the East Court building. It is crucial to keep the Natural History building’s mechanical renovation project on schedule, to minimize the interruption of regular scientific work, and to maintain access to important and frequently utilized reference collections.

The Discovery Center, also known as the West Court project, is now under construction within the National Museum of Natural History building and is funded by a bond issue to be repaid from revenue-producing activities. Occupancy of the building will begin late in 1998. It will provide staff and public restaurants as well as a new, large-format, 2D/3D theater. The building will also provide new and expanded space for the Discovery Room, Natural History’s hands-on learning center, currently located in the main Museum building, and for the anthropology film archives. The Discovery Center will be integrated with the existing structure as well as with the building’s mechanical support systems.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits, as well as general program costs. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects. Government grants and contracts provide support for research and exhibitions.
ABSTRACT - The National Portrait Gallery (NPG) exhibits and studies portraits of major figures in American history and culture. It also studies the artists who created portraits in its collection and sponsors scholarly and public activities in these areas.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Portrait Gallery. The Institution requires $212,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - The National Portrait Gallery explores the heritage and accomplishments of the American people by collecting, documenting, preserving, studying, and exhibiting portraits in all media as both historical and artistic documents.

Electronic Outreach - The National Portrait Gallery's newly named Center for Electronic Research and Outreach Services continued to bring Gallery collections, programs, and exhibitions to researchers and the public via the World Wide Web. This year's online exhibitions and programs included “Edith Wharton’s World,” “George C. Marshall: Soldier of Peace,” “Celebrity Caricature in America,” “The Amistad Case,” “The Seneca Falls Convention,” and “Andy Warhol FLASH—November 22, 1963.” Current website awards include Snap Best of the Web, Lycos Top 5%, Education Index Top Site, and ThirdAge Special Site. Visitor hits to the homepage totaled approximately 100,000 this past year. The Center also successfully installed a new collections information system (CIS), part of a joint initiative by six Smithsonian museums. The Catalog of American Portraits’ research records are included in the new CIS database as well as in the website’s collections.
search. The online search provided more than 25,000 responses to researchers’ queries this year.

During FY 1998, research and writing of *The Selected Papers of Charles Willson Peale and His Family, Volume 5: The Autobiography of Charles Willson Peale* was completed and submitted to Yale University Press. A publication subvention from the National Historical Publication and Records Commission of the National Archives was awarded.

**Collections Management** - Conservation of fourteen sculptures in the collection was made possible by a generous grant from the Smithsonian Women's Committee. These included sculptures of Ginger Rogers by Isamu Noguchi, Thomas Hart Benton by Onorio Ruotolo, George Nakashima by Jonathan Shahn, and Nettie Fowler McCormick by Erastus Dow Palmer.

**Collection Acquisitions** - During FY 1998, approximately 300 acquisitions were added to NPG's collections. Among the most important were a caricature drawing of David Smith by David Levine, two drawings of Lincoln Kirsten by Jamie Wyeth, a pastel drawing of James Baldwin by Beauford Delaney, two watercolor sketches of Josephine Baker by Paul Colin, and a drawing of Ben Shahn by Alexander Calder. The Gallery received two major bequests: portraits of David Rittenhouse by Charles Willson Peale and Daniel Webster by Francis Alexander. Other acquisition highlights included portraits of Edward Albee by Menden Hall, Jonas Phillips by an unidentified late 18th-century artist, and Catherine Shouse by Elaine Pear Cohen.

**Exhibitions** - To commemorate the fiftieth anniversary of the Marshall Plan, the National Portrait Gallery and the George C. Marshall Foundation in Lexington, Virginia, co-organized an exhibition on the life and career of American general and statesman George C. Marshall. The exhibition will travel to the Marshall Museum in Lexington, Virginia. “Faces of Time: Seventy-five Years of Time Magazine Cover Portraits” was organized to commemorate *Time's* 75th anniversary and its gift to the Gallery of several thousand original art works that appeared on the magazine’s covers. The exhibition will travel to four venues including two presidential libraries. Work is underway on eleven other exhibitions opening in 1999 and on plans for touring exhibitions from the Gallery's permanent collection while the museum is closed for renovation, now scheduled to begin in FY 2000.

**Education** - The Gallery interprets its collection through daily gallery tours, elementary and secondary school programs, senior citizens' outreach
programs, lunchtime lectures and book signings, films, and performances.

The Gallery presented 26 Living History Performances of *Lens of History*, a twenty-minute one-man show bringing Mathew Brady's accomplishments to life, and "How Did Mathew Brady Make These Pictures?" Day, an afternoon of demonstrations of nineteenth century photographic processes and techniques. It also presented sixteen Lunchtime Lectures, some with book signings, including John S.D. Eisenhower's discussion of his book, *Agent of Destiny: the Life and Times of Winfield Scott*. The Cultures In Motion program produced 26 performances, including *The Beatles Second Invasion* concerts held in conjunction with the Gallery's "Faces of Time" exhibition. Nationally-known Beatles tribute bands performed in the Portrait Gallery Courtyard each Thursday in July to unprecedented crowds.


**NONAPPROPRIATED RESOURCES** - General Trust funds provide support to help defray costs of publications, public lectures, symposia, special events for exhibition openings, loan exhibition development, management, research, and fundraising. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects. This past year Time, Inc. and Canon USA, Inc. sponsored the "Faces of Time: Seventy-five Years of Time Magazine Cover Portraits" exhibition. "Celebrity Caricature in America" was supported by the Marpat Foundation and Nations Bank Charitable Foundation, and the "Mathew Brady" exhibition received funding from Siemens Corporation, the Marpat Foundation, and Citibank.
NATIONAL ZOOLOGICAL PARK

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - When the National Zoological Park (NZP) was founded in 1889, its mission was defined as "the advancement of science and the instruction and recreation of the people." The Zoo still works to achieve these ends. Since NZP’s public function is educational and recreational, it seeks to enhance public awareness about biology and related subjects. This emphasis means that the Zoo is concerned with all aspects of life, both terrestrial and aquatic, small and large, past and present. Responding to the world environmental crisis, the Zoo is now committed to representing the whole of life on earth, plant and animal, in all its complexity and glory. To this end, NZP is transforming the animals-only zoological park into a biological park (BioPark). The BioPark will highlight the intermeshing relationships of animals and plants, educate visitors by its spectacle and beauty, and foster a concern for the future of life in all its forms.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the National Zoological Park. Funds requested under Conservation Biology will support continued research on how wildlife is affected by invasive species. The Institution requires $760,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - NZP serves both the general public and more specialized audiences by promoting the conservation of life on Earth through informal and formal education, research, and animal health programs. NZP's educational efforts center on biological literacy, with special emphases on evolution, complex adaptive interactions, the origins and importance of biodiversity, global change, and the impact of humans on the world. In pursuit of its mission, NZP exhibits a wide range of living plants and animals on its 167-acre facility in Rock Creek Park in Washington DC. It
also maintains the Conservation and Research Center as a major facility for endangered species propagation, conservation, training, and research located on 3,150 acres near Front Royal, Virginia. The scale and scope of the Zoo’s programs require a skilled support staff, with specialized equipment and materials capable of developing and maintaining the unique systems essential to sustaining living animal and plant exhibits. Also included in this line item is a portion of the International Environmental Science Program, which supports long-term studies of the endangered Golden Lion Tamarin.

Research - Zoo nutritionists, in collaboration with the Bureau of Land Management, have been studying the feeding behavior of endangered tortoises in Nevada since 1991. Between 1991 and 1997, the tortoises ate 127 species of plants. Studies in 1998, an El Niño year, show the tortoises ate an additional 103 plant species containing rare but essential nutrients. For tortoises, which live 50 to 100 years, ephemeral plants growing in unusually wet years appear to be critical for their normal development and reproduction. Only long-term studies will provide information to support such conclusions, and the Zoo’s nutritional scientists are analyzing plant samples to determine whether these relationships exist.

Zoo physiologists continue to document the reproductive cycles of threatened species using noninvasive endocrine monitoring techniques. Zoo scientists use these techniques to develop appropriate semen collection and artificial insemination protocols and to diversify the captive populations. In 1998, Zoo pathologists discovered a new strain of fungus affecting frogs in the collection. This fungus may be implicated in the dramatic worldwide decline of frog populations occurring over the past decade. These are cases where Zoo research has considerable impact on problems in animal populations and habitats.

Living Exhibits - Living exhibits serve as the centerpiece of the National Zoo. In 1998, the Zoo opened its “Great Cats Exhibit,” a highly interactive series of graphics and displays surrounding the existing lion/tiger yards. As part of the new American Prairie exhibit, the new prairie dog exhibit opened. The remainder of the American Prairie exhibit will open in the spring of 1999 when American Bison are added to the exhibit. The national-award-winning exhibit “Think Tank” continues original research on great ape cognition, and the Amazonia Science gallery continues to expand its programs for bringing Smithsonian science to the general public. “Living in Water” (described under the Aquatics Exhibit
section of the Repair, Restoration and Alterations of Facilities portion of this budget request), the “American Farm,” and the Urban Wildlife Center are in concept development for possible openings in years 2000 and 2001.

**Animal Conservation** - Programs at the Conservation and Research Center focus on the preservation of endangered species and the development of specialized education and training programs. Staff members continue to play a leading role in the preservation of Micronesian kingfishers and a host of other threatened species through a dynamic combination of field studies, laboratory investigations, and interactive management of wild and captive populations. To assist national and international conservation goals, NZP scientists present a variety of custom-designed training courses in wildlife education. These courses, taught at the Center and at various locations abroad, are aimed at students and professionals from the U.S. and developing countries. In addition to its research, management, and training programs, the Center maintains CONSLINK, an international computerized bulletin board dealing with conservation issues and findings.

**Education** - The Zoo's diverse educational programs include student and professional training programs, research lectures, public lectures, special events, public demonstrations, specialized films and publications, and dissemination of information through the Internet. Zoo staff develop innovative educational outreach programs and curricula for teachers and school children. Major collaborations between organizations and governments in Latin America allow the Zoo to support local and international programs of great interest to Latino and non-Latino audiences. Novel programs, like "Scientists in the Classroom," allow students and teachers to interact directly with Zoo scientists and researchers, and reach millions of teachers and students across the nation with teleconferencing. During FY 1999, the Zoo will continue expanding its teleconferencing capabilities and expand and improve its Internet website.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits of personnel, general support, fundraising, outreach, and acquisitions. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, such as conservation, research, and training. Government grants and contracts provide support for research.
SMITHSONIAN ASTROPHYSICAL OBSERVATORY

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**ABSTRACT** - The Smithsonian Astrophysical Observatory (SAO) conducts research to increase understanding of the origin and nature of the universe and to communicate this information through publications, teaching, and public presentations. SAO studies diverse systems, including the large-scale structure of the universe, clusters of galaxies, quasars, the sun, and planets. SAO also conducts research in laboratory astrophysics, atmospheric physics, geophysics, medical physics, and precollege science education. SAO research has a major impact in the worldwide scientific community and has helped the United States maintain worldwide leadership in science.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Astrophysical Observatory. An increase of $613,000 justified in the Mandatory Increases section of this budget will support increased rental cost for SAO facilities in Cambridge, Massachusetts ($270,000), necessary rental space in Hilo, Hawaii ($320,000) for the Submillimeter Array project, and inflationary increases on book and journal purchases ($23,000). The Institution requires $532,000 for Necessary Pay for existing staff funded in this line item.

**PROGRAM** - SAO is a member of the Center for Astrophysics (CfA), headquartered in Cambridge, Massachusetts. In collaboration with the Harvard College Observatory, SAO pursues a broad program of research organized by the following disciplines: atomic, molecular and medical physics; high-energy astrophysics; optical and infrared astronomy; planetary sciences; radio and geoastronomy; solar and stellar physics; theoretical astrophysics; and science education.
SAO’s observation facilities include the Fred Lawrence Whipple Observatory in Arizona, the Oak Ridge Observatory in Massachusetts, and a millimeter-wave radio telescope at Cambridge, as well as instruments occasionally launched aboard balloons, rockets, and spacecraft.

Research – In FY 1998, the Smithsonian Astrophysical Observatory made significant advances in several areas. Looking deep into space to analyze light from exploded stars (supernovae), SAO and Harvard astronomers, and their colleagues elsewhere, have found substantial evidence that the expansion of the universe is speeding up rather than slowing down. Another research group also obtained similar evidence at almost the same time. If confirmed, this very surprising and totally unexpected finding, confirming the existence of a "pressure" arising from empty space, will truly revolutionize our view of the universe.

Astronomers have long suspected that a black hole lurks at the center of our galaxy, the Milky Way. Now, using the high resolution capability of the Very Long Baseline Array (VLBA) of radio telescopes to track the movements of matter around the center, scientists at SAO and their colleagues elsewhere have obtained strong evidence that such a black hole, with a mass equivalent to that of about three million Suns, anchors the heart of the Milky Way.

The remarkable high-resolution images of the sun’s inner atmosphere returned by NASA’s Transition Region and Coronal Explorer (TRACE) spacecraft are dramatically challenging theories about solar physics. TRACE incorporates special mirrors designed by SAO scientists and instruments sensitive to extreme-ultraviolet wavelengths of light. With unprecedented high temporal and spatial resolution, TRACE is studying the formation and decay of huge magnetic loops arising from the surface of the sun. These loops are associated with the source of the solar wind, which is the stream of charged particles that pours from the sun to engulf the solar system, often disrupting communication and power systems on Earth.

A team of astronomers led by scientists at SAO discovered a disk of gas and dust around a nearby star that may be forming or may have already formed planets. This proto-planetary disk, about three times the diameter of Pluto’s orbit around the sun, surrounds a star roughly 220 light-years from Earth, which, according to theory, has the right age to be forming planets now. The disk was discovered independently and nearly at the same time by a second team of astronomers using the 10-meter Keck II Telescope on Mauna Kea, Hawaii.
The success of SAO scientists in competitions to be part of major NASA space missions has enabled SAO to greatly enhance its scientific impact. Scientists at SAO played or will continue to play key roles in the design, instrumentation, and operation of the NASA Advanced X-ray Astrophysics Facility (AXAF). AXAF is the third of NASA’s "Great Observatories," along with the Hubble Space Telescope and the Compton Gamma Ray Observatory, and is designed to observe in x-rays—in much greater detail than ever before—the hot, violent regions of the universe that cannot be seen with optical telescopes. This satellite is currently in the final stages of testing with launch scheduled for January 26, 1999.

The start of the design and development phase of the fourth and last of NASA’s Great Observatories has begun. The Space Infrared Telescope Facility (SIRTF) will be the infrared equivalent of the Hubble Space Telescope. SAO is developing the Infrared Array Camera (IRAC) for this mission. The IRAC instrument will address four major scientific objectives defining the SIRTF mission: (1) study the early universe, (2) search for and study brown dwarfs and superplanets, (3) study ultraluminous galaxies and active galactic nuclei, and (4) discover and study protoplanetary and planetary debris disks. In addition, IRAC is a general-purpose camera that will be used for a wide variety of astronomical research programs.

**Education** - In FY 1998, SAO continued work on a discovery-based elementary school curriculum using astronomy as a unifying theme. The Education Forum at SAO is one of four major centers for space science education established this past year by NASA. The Forum’s educational mission is to bring to the widest possible audience the stories and concepts relating to the structure and evolution of the universe. SAO’s Summer Intern Program brought a dozen college undergraduates to Cambridge to work with SAO scientists on a variety of research projects.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits of personnel and general operations. In addition, these funds provide support for research, fellowships, business expenses, and fundraising. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects. Government grants and contracts provide support for major research in SAO’s areas of expertise and experience which is often carried out in cooperation with both governmental and academic institutions in the United States and abroad.
ABSTRACT - The Smithsonian Center for Materials Research and Education (SCMRE), formerly the Conservation Analytical Laboratory, located at the Museum Support Center in Suitland, Maryland, is the Smithsonian's specialized research facility for the conservation and technical study of museum objects. SCMRE staff examine the conservation-related properties of materials, extract historical information from their technical record, and improve conservation treatment technology. Experience with a wide range of materials and expertise in analytical and technological studies enables SCMRE to engage successfully in collaborative research with anthropologists and art historians. SCMRE also conducts a conservation training program that provides instruction in basic and advanced conservation theory and technique, supports and organizes workshops and seminars, and disseminates the latest knowledge in the field of conservation and cultural materials research to museums and research professionals as well as to more general audiences throughout the United States and the world.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Center for Materials Research and Education. The Institution requires $109,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - SCMRE's program areas include research and development, education and training, and support and collaboration.

Research and Development - SCMRE has undertaken baseline research to determine the potential for retrieval of biomolecular information from fluid-preserved zoological collection specimens. Results indicate that...
changes must be made in the manner in which new collections are preserved if the specimens are to be used as reservoirs of molecular information in the future. A newer initiative involving the determination of the extent of preserved isotopic biosignatures in museum herbarium collections is more positive. Preliminary findings demonstrate that while the preservation process does affect plant organic matter, individual compounds are preserved over time periods of 100 years.

Provenance studies that focus on New World ceramic production and trade continue with major projects being carried out in conjunction with Mexico's Instituto de Antropología y Historia. Pottery is being characterized from the northern Mexican site of Casas Grandes and the Mayan site of Calakmul. Both have been designated by the Mexican government as among the 10 most important sites in the country.

The research carried out by SCMRE staff in recent years on the effects of such environmental conditions as temperature and relative humidity on the long-term stability of collection materials is being synthesized in a monograph on the mechanical properties of museum materials. This reference work is expected to reach completion by the end of FY 1999.

**Education and Training** - Fundamental to educational programming at SCMRE is dissemination of knowledge to new and wider audiences beyond our traditional constituency of museum conservation professionals.

One program directed toward that end provides education, outreach, and technical studies on characterization and preservation of Hispano-American polychrome wood veneration art (Santos, or Imagenes). A major project within this initiative was a three-day workshop entitled "Preservation of Santos," held in San Juan, Puerto Rico. The Universidad Del Sagrado Corazon (USC) San Juan, Puerto Rico, was the host and co-sponsor for the workshop. The course combined lecture presentations with practical studio applications in objects examination and evaluation, and preservation treatments and strategies.

A second major project is the development of an interdisciplinary high school curriculum in arts and materials technology entitled Science Teaching Art Teaching Science (STATS). In this project, SCMRE staff are collaborating with a local high school in Suitland, Maryland, and other educators to develop an interdisciplinary full-year art/science curriculum for
secondary and undergraduate classrooms. This multimedia curriculum is being developed to allow teachers nationwide to use artists' materials as a means of teaching science and technology.

Pursuing the establishment of a Center of Excellence in microscopy, SCMRE recruited a microscopy specialist to develop techniques in such areas as sample preparation and image analysis, as well as an educational program aimed at professionals concerned with the care and study of museum collection materials. Progress thus far includes the preparation for a first course in applied optical microscopy planned for the end of FY 1998.

Support and Collaboration - SCMRE continued to provide analytical and technical assistance to conservation and curatorial staff in various Smithsonian museums, as well as to ongoing research and educational efforts at SCMRE. During FY 1997 the Center performed more than 2,200 analyses of which 30 percent were for other Smithsonian units. Staff provided consultations and advice on diverse technical and analytical matters, including x-ray radiography, optical and electron microscopy, and organic materials characterization. The Center provided answers to almost 1,000 requests for information from the general public and museum professionals, both nationally and internationally. Staff also assisted with the production and distribution of SCMRE technical guidelines and other publications for museum professionals, and maintained and updated SCMRE’s website.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for research and education activities
ABSTRACT - The Smithsonian Environmental Research Center (SERC) advances stewardship of the biosphere through interdisciplinary research and education. SERC scientists study a variety of interconnected ecosystems starting from its base on the shore of the Chesapeake Bay and radiating out to comparative landscapes throughout the world. Research findings are communicated to diverse audiences through public programs and professional training.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Environmental Research Center. Under the Conservation Biology support requested under Institution-wide Programming, SERC will expand its database on alien invasive species and help assess their impact on local ecosystems. The Institution requires $110,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - The Smithsonian Environmental Research Center is dedicated to increasing knowledge of the biological and physical processes that sustain life on Earth. SERC’s interdisciplinary research includes long-term studies to examine the ecological questions about landscapes of linked ecosystems, especially those affected by human activities. Located on the shore of the Chesapeake Bay, SERC uses the geographic features of the nation’s largest estuary to investigate interconnections of aquatic, terrestrial and atmospheric components of complex landscapes. These studies are then compared on regional, continental and global scales. For improved stewardship of the biosphere, SERC’s research provides data, publications and expert consultation in support of conservation, environmental policy and management of natural resources. Connected to an international network of collaborators, SERC trains future generations of
scientists to address ecological questions of the Nation and the globe. SERC’s education programs use exposure to a natural environment to demonstrate to the public both the active process of research and also the value of scientific approaches to environmental issues.

Research – SERC’s research on effects of increased carbon dioxide on plants shows how global change in the atmosphere is affecting marshes, coastal scrub, and forest communities. The Department of Energy uses SERC research on complex interactions of nutrients and water with altered plant production in large-scale biosphere models.

Research on landscape ecology at SERC determines the effects of agriculture, forests, and topography on transfer and transformation of nutrients flowing into the Chesapeake Bay and other estuaries, which suffer from too much nitrogen and phosphorus.

SERC is a national center for research on introduced marine species, which are invading coastal ecosystems at unprecedented rates throughout the world. One of the main causes of these biological invasions is plankton transferred in ballast water of ships. During FY 1998, SERC worked closely with the U.S. Coast Guard to establish the National Ballast Water Information Clearinghouse, which gathers data on commercial ships from foreign ports releasing ballast water to all U.S. ports. SERC also conducted a national workshop for the U.S. Fish & Wildlife Service to synthesize current information on nonindigenous species in coastal ecosystems and to develop standards for assessing invasions of all major coastal regions in the United States.

During 1998, SERC’s research on population dynamics and community ecology of plants and animals involved a rich diversity of species. SERC’s scientists determined the importance of fungi in seed germination of orchids of U.S. forests, the factors regulating toxic and non-toxic blooms of phytoplankton in the Chesapeake Bay, and the impact of over-fishing on the reproductive biology of blue crabs along the east coast of North America.

Education - SERC dedicated the new Philip D. Reed Education Center in FY 1998. The new facility allows SERC to expand its public offerings to regional school groups, to conduct workshops for teachers, to provide public lectures for interested citizens, and to expand innovative educational offerings to diverse constituencies, including disabled citizens. Over 6,500
individuals participated in programs at SERC’s site on the Chesapeake Bay in FY 1998, as did tens of thousands more through the SERC site on the World Wide Web. SERC trained 32 interns, 10 graduate student fellows, 10 post-doctoral fellows, and 30 visiting scientists from 23 states, the District of Columbia, and 14 countries through professional education programs during the past fiscal year. The increasing numbers of students and scientists visiting SERC from many foreign countries and all parts of the United States provide crucial avenues for disseminating SERC’s research findings and expertise.

Exhibitions - SERC completed a traveling exhibition on the blue crab and its ecological importance in the Chesapeake Bay. During FY 1998, the blue crab exhibit provided scientific information on the morphology, life cycle, and habitat requirements of this important fishery species to numerous classrooms and school fairs throughout Maryland.

Publications - SERC published 60 articles in FY 1998. Among the most significant of these was a paper in Nature, showing that the hole in the ozone layer of the atmosphere over Antarctica is reducing plankton production in the southern ocean. Results show that turbulent mixing of the sea greatly increases the impact of the sun’s ultraviolet rays on microscopic plants at the base of the marine food chain.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for salaries and benefits of personnel, research, fundraising, intern and fellowship programs. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, such as research, public education, and professional training. Government grants and contracts provide support for special projects at SERC that use the expertise of the staff to meet national goals for environmental research and education.
SMITHSONIAN TROPICAL RESEARCH INSTITUTE

APPLICATION OF OPERATING RESOURCES

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ABSTRACT – As the only U.S. research facility located in the mainland tropics and dedicated to the study and conservation of the world’s tropical ecosystems, the Smithsonian Tropical Research Institute (STRI) studies the functioning and composition of these systems for scientific research and for developing conservation policy in the tropics. STRI maintains a core of resident scientists and supports several hundred visiting scientists and research fellows from around the world. It also maintains a series of protected marine and terrestrial field sites and well-equipped laboratories for basic and applied tropical research, including the Barro Colorado Nature Monument (BCNM) where research in tropical biology has been conducted for more than 75 years. STRI was designated custodian of the BCNM under the terms of the Panama Canal Treaties of 1977 and an extension of custodianship of the area beyond the year 2000 was confirmed recently in agreements with the Republic of Panama. STRI erected the first construction cranes to study the canopies of tropical forests; runs a modern, ocean-going research vessel for marine and paleobiological studies; and houses a first-class research library and conference center.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Tropical Research Institute. Funding requested for Conservation Biology programs will allow STRI to enhance its research on the impact of El Niño and La Niña events on marine ecosystems. The Institution requires $328,000 for Necessary Pay for existing staff funded in this line item. Included in the STRI line item, but justified in the Mandatory Increases section of this budget request, are funds to support the increase in personnel costs at STRI resulting from implementation of the 1977 Panama Canal Treaty ($1,225,000).
PROGRAM - STRI conducts fundamental research on the ecology, physiology, evolution, and behavior of plants and animals in the tropics, including humans, with emphasis on the relationship of tropical organisms to global climate change. In addition, STRI provides facilities and logistical support for the international scientific community to study terrestrial and marine tropical biology. STRI also supports environmental education, conservation, and management of tropical ecosystems, and protects and manages the Barro Colorado Nature Monument.

Research - Among STRI’s fundamental research programs are the following:

- **Plant Physiology and CO₂ Studies** - STRI has become the center for research on tropical plant physiology, as well as on the response of tropical forest systems to elevated levels of carbon dioxide (CO₂) and consequent global warming. After conducting pioneering, small-scale experimentation on the effects of elevated CO₂ on seedling growth and carbon sequestration, STRI is planning to establish for the first time in the tropics a free air carbon dioxide enhancement (FACE) experiment to study forest regeneration over several years to learn more about the CO₂ response of mature tropical trees. STRI has intensified studies on the dynamic changes in forests in order to examine the impact upon these systems of the mega El Niño event of 1997 through 1998. Results of these studies are currently being analyzed.

- **Tropical Forest Canopy Biology** - Extraordinary levels of biodiversity have been discovered in the canopies of tropical rainforests. STRI pioneered the study of the canopy using construction cranes to reach the tops of trees where much of the biological activity of the tropical forest takes place. The cranes enable STRI to conduct measurements from the surface of forest canopy leaves which can be used to calibrate physiological states of forests as measured by the National Oceanic and Atmospheric Administration and National Aeronautics and Space Administration satellite instruments. These cranes continue to attract scientists studying the exchange of gases between the canopy and the atmosphere and the intricate responses of the canopy to light, humidity, atmospheric carbon, and wet/dry seasonal changes. These studies are revolutionizing the understanding of tropical forest biology, and providing crucial data for sound conservation and management of tropical forests.

- **Tropical Marine Ecology** - STRI researchers continue to document a catastrophic regional decline in coral reef cover and structure by tracking the dynamics of coral reefs along the Caribbean coast of Panama. The
techniques of molecular systematics have revealed more relationships than previously thought between corals and their algae symbionts. These relationships are fundamental to coral reef ecology because the increasing frequency of the expulsion of algae (coral bleaching) and the environmental stress that results may be harbingers of global warming. The Institute also plans to implement monitoring programs at two recently acquired sites in the contrasting Eastern Pacific Ocean on the island of Rancheria and in the Caribbean Sea in Bocas del Toro in western Panama. Understanding these extraordinarily diverse coral reef systems is essential for effective management and conservation of tropical marine ecosystems.

Publications - During FY 1998, STRI scientists published over 200 technical publications as well as several important books on such diverse subjects as the origins of agriculture in the New World; the natural and cultural history of Central America; the methodology for large scale tropical forest dynamics studies; history, economy, and land use in the Peruvian Amazon; and a survey work of the marine environment of the Cayos Cochinos archipelago off the coast of Honduras.

Implementation of the Panama Canal Treaties - Under the terms and conditions of the Panama Canal Treaties, the United States will turn over responsibility for the operation of the Panama Canal and its related facilities to the Republic of Panama on December 31, 1999. Under a 1997 agreement with the Republic of Panama, STRI is authorized to continue its tropical research mission in the country for 20 years beyond 2000, renewable for a like term. STRI will, however, experience the loss of various support services provided to STRI by the U. S. Department of Defense in Panama, and changes to the STRI personnel system will be required in order to comply with local law. The Institution is requesting $1.225 million under mandatory costs in order to implement a new employment system for STRI.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for salaries and benefits of personnel. In addition, these funds provide general support for research, fellowships, publications, and fundraising. Donor/Sponsor Designated funds provide support for costs related to specific programs and projects, such as research and the purchase of scientific equipment. Government grants and contracts provide support for research, internships, and symposia.
COMMUNICATIONS AND EDUCATIONAL PROGRAMS

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ABSTRACT - The Smithsonian’s communications and educational programs promote the building of academic, scholarly, and community-based ties with the public, educational centers, and institutions throughout the Nation. This line item includes the Visitor Information and Associates’ Reception Center, the Office of Public Affairs, Smithsonian Press/Smithsonian Productions, the Office of Fellowships and Grants, the Center for Museum Studies, the Smithsonian Office of Education, and the National Science Resources Center.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for communications and educational programs. The Institution requires $179,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - Visitor Information and Associates’ Reception Center (VIARC) - The Visitor Information and Associates’ Reception Center seeks both to broaden the public’s knowledge, appreciation, and enjoyment of the Smithsonian and also to facilitate and promote participation in its programs and activities. As a central support organization and the principal contact point for information about the Institution, VIARC’s work is carried out through the Smithsonian Information Center; 17 museum information/member reception desks; response services for public and member mail, telephone, and electronic inquiries; outreach to the tourism industry; outdoor way-finding stations; and volunteer programs which provide primary support for the Institution’s public information activities and for behind-the-scenes staff project assistance.
Office of Public Affairs (OPA) - The Office of Public Affairs acquaints the public with the programs and policies of the Institution through a variety of publications and by working with newspapers, magazines, television, and radio to gain media exposure for its exhibits, public events, and research. A major goal of OPA is to encourage culturally diverse audiences to take advantage of the many resources of the Smithsonian.

Smithsonian Institution Press/Smithsonian Productions - The Smithsonian Institution Press/Smithsonian Productions is a multimedia publisher of scholarly and a limited number of popular works related to the Institution’s collections and research interests. Among these works are academic and technical books and series, as well as television, film, and radio programs and special products created both in-house and with commercial partners. The office distributes a range of official printed and electronic documents, such as the *Smithsonian Contributions and Studies* series, *Smithsonian Year*, and *Annals of the Institution*, to the international academic community and the general public.

Office of Fellowships and Grants - The Office of Fellowships and Grants manages the Institution’s centralized fellowship and internship programs, all other stipend appointments, and competitive Trust-funded grant programs that support research and other scholarly activities of Smithsonian staff and their collaborators.

Center for Museum Studies (CMS) - The Center for Museum Studies facilitates learning about museum theories and practices. CMS offers courses and seminars, internships and fellowships, and information and advisory services to the museum community. Through its programs and publications, CMS focuses on outreach and service to those under-represented in the museum field. In addition, it is developing a ground-breaking program to train faculty at community colleges in the use of museum resources.

Smithsonian Office of Education (SOE) - The Smithsonian Office of Education works in collaboration with the Smithsonian museums and research institutes to advance the Smithsonian as a national resource for educators through print and electronic publishing, professional development for teachers, and museum school partnerships. SOE also serves and provides leadership to the Smithsonian education community and coordinates outreach initiatives to diverse audiences. Through focus groups and analysis with leading Web developers, the Office is developing
long-range plans for a Smithsonian-wide education area on the World Wide Web.

National Science Resources Center (NSRC) - The National Science Resources Center (NSRC), with advisory board members from the Smithsonian Institution and the National Academy of Sciences, works to improve the quality of science education in the nation's elementary and secondary schools. NSRC supports systemic science education reform efforts in communities across the nation through its materials development, information dissemination, and outreach programs. All National Science Resources Center programs stress the involvement and collaboration of teachers and scientists. Scientists and engineers from business and industry, as well as academia, play a strong role in the development and implementation of NSRC programs.

NONAPPROPRIATED RESOURCES - General trust funds provide support for salaries and benefits of personnel and other related costs. In addition, these funds provide general support for information dissemination, outreach, publications, and general operations. Donor/Sponsor Designated funds support costs related to specific programs and projects. Government grants and contracts provide additional support for resource materials development, information dissemination, and outreach.
INSTITUTION-WIDE PROGRAMS

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ABSTRACT - As part of the Restructuring Plan reviewed and approved by Congress in 1993, the Smithsonian reallocated funds to create two Institution-wide funding programs: one supports the units' needs to replace, upgrade, and acquire new research equipment; the other enables the myriad of information technology needs across the Institution to be addressed systematically. In FY 1995, the Institution received funds to support the development of a third Institution-wide program for Latino programming. These funds are important to meet the on-going need to acquire state-of-the-art research equipment, continue to improve the information infrastructure and systems, and increase Latino programs, research and collections.

In addition to the three existing programs, the Institution requests resources to establish three additional Institution-wide programs. The first program will allow the Institution to integrate SI conservation biology programs addressing the problems associated with invasive alien species and conservation of vulnerable marine ecosystems and terrestrial habitats, while the second program will enhance planning for exhibition renewal projects. The third program will expand Asian Pacific American programming across the Institution.

For FY 2000, the Smithsonian requests an increase to this line item of $2,000,000 for information technology needs, $2,000,000 for exhibition renewal and $1,500,000 and 10 FTEs for conservation biology activities. In addition, the Institution requests $295,000 for Asian Pacific American programming. The conservation biology, exhibition renewal, and Asian Pacific programs would be established as separate Institution-wide
programs managed by the Office of the Provost. The Institution requests that the funding in this line item remain available until expended.

**CURRENT PROGRAMS**

**Research Equipment** - The research equipment program helps fund some of the most basic research equipment needs of the Institution. Requirements to replace dysfunctional equipment and acquire new research tools far exceed the existing base funds of $1,885,000. Each year, unit directors in the museums, research centers and research support offices determine the most effective application of the funds to meet the highest priority needs.

Most program units at the Institution received some level of support for research equipment in FY 1998. Smithsonian Astrophysical Observatory (SAO) scientists, using parts purchased with funds from the program, constructed an apparatus that is unique in the world for its potential to produce detectable amounts of new hydrocarbon molecules. The first discovery from this new device in late August 1998 is a previously unknown molecule, informally named eiffelene because of its molecular structure’s resemblance to the Eiffel tower. Eiffelene will likely prove to be important in studying interstellar chemistry and the physical conditions of material between stars.

Examples of other purchases:

- a floor stand microscope and attachments for the National Museum of the American Indian

- an ambient vaporizer, ice flake machines, a DNA speed vacuum centrifuge, a fixed angle rotor centrifuge, DNA sequencing assembly and editing kit, an autoclave, a DNA thermal cycler chassis, and a video format camera system for the Smithsonian Tropical Research Institute

- a microwave digestion system, a histocenter embedding unit, a robotic slide strainer, path center processor, a constant temperature water bath, gamma radiation counter, two animal anesthesia systems and an ultrasound system for the National Zoo


- a focus graphics film recorder, a wide angle camera and accessories, and a digital camera for the National Air and Space Museum

- a microscope for the Arthur M. Sackler Gallery/Freer Gallery

**Information Resources** - The Smithsonian is greatly increasing its use of technology both to manage its vast holdings and to share these resources with researchers, other museums, educators, parents, students and the public at large. In FY 1998, with base funds of $2,810,000 supporting an Institution-wide network and communications, collections information systems and digitization, this program provides an infrastructure upon which the Institution’s programming for the Web can be extended to all our various electronic visitors. Schools, libraries, and homes across the Nation now have the ability to make electronic visits to their national museums via the Smithsonian’s popular websites. Whether working on a research project on meteorites, studying for an art history exam, planning a visit to one of the museums in Washington or New York City, or simply wandering through a virtual exhibition, individuals with a specific or general interest in a broad range of topics are increasingly tapping into the Smithsonian’s homepages for information. Increased attention to programming for the Web is an important new responsibility of each museum, research institute and program office, and the public has increasing expectations for that programming.

Across the Institution, units are experimenting with new ways to bring the treasures of the Smithsonian, from the collections or from the great store of knowledge developed over 150 years of research, to a variety of audiences throughout the nation and beyond. Educational programs translate exhibitions and collections into materials for teachers, parents and children. In a Spring 1998 survey of teachers who use Smithsonian educational materials, 90 percent report having Internet access. Clearly, there is a responsibility to respond to the needs of this growing online community of teachers and families by increasing the quantity and quality of Smithsonian educational materials available on the Web. This requires developing information in several different formats.

Information on museum collections is steadily moving toward a set of interconnected databases for registrarial, research and curatorial use. These records provide the foundation for public access to the collections, and will include images, videos and sound tracks. This integration of data
allows users to search for similar material across the Institution through one search request.

Electronic access to images of the collections helps to preserve objects, and is especially useful for materials in poor condition that would otherwise not be available for study. A pilot project at NMNH includes digitizing a rare 18th-century book used by entomologists as a taxonomic reference. Results have been very positive and plans are underway to set priorities among such manuscripts for electronic processing.

Lesson plans developed from Smithsonian programs can now be enhanced significantly with links to object images and electronic exhibitions. One on Eskimos uses objects from the collection to teach about the Eskimo culture. The simple text and pictures are placed in a broader context through links to the “Crossroads of Continents” exhibition, and several other websites describing Alaskan history, geography and economy.

Electronic versions of Smithsonian exhibitions make it possible to share them with those who are unable to visit Washington DC. In addition, exhibitions can be developed for the Web using collections that may not otherwise be available for public viewing. Visitors planning a trip to the Smithsonian can take an advance tour through websites developed by each museum and research institute, and can relive their visit after they return home, or they can surf the vast array of activities to customize their visit to their particular interests.

**Latino Exhibitions, Acquisitions, and Educational Programming** - The Institution has $998,000 in its base to support exhibitions, research and educational initiatives that illuminate and highlight Latino contributions to America and permit a wider sharing of Latino accomplishments in the sciences, humanities and performing arts. Designated as the Latino Initiatives Fund, these funds are dispersed annually to Smithsonian units on a competitive basis, with an emphasis on projects with the potential to attract matching and, ultimately, sustaining funds from non-Federal sources.

**EXPLANATION OF PROGRAM INCREASE** - For FY 2000, the Smithsonian requests an increase to this line item of $2,000,000 for information technology needs, $2,000,000 for exhibition renewal and $1,500,000 and 10 FTEs for conservation biology activities. In addition, the Institution requests $295,000 for Asian Pacific American programming. The
conservation biology, exhibition renewal, and Asian Pacific programs would be established as separate Institution-wide programs managed by the Office of the Provost. The Institution requests that the funding in this line item remain available until expended.

**CURRENT PROGRAM**

**Information Resources, ($2,000,000) -** The Institution requests resources to maximize its ability to develop and maintain the programming and research information available on the Web. Few collection catalog records go beyond minimal inventory or basic description of an object. Much of the Smithsonian’s research information, which conveys the significance of the collection to our nation’s artistic, historic, scientific and social heritage, remains in manual files unavailable for public inquiry. The Institution will use the requested funds to support retrospective cataloging, adding contextual information, and scanning of documents.

Requested funds will also support enhancement of teaching resources. Two projects provide examples of what is possible with additional support: The Freer and Sackler Galleries are working with the Fairfax County Public Schools to develop third-grade curriculum materials on ancient China. Two websites are planned: one designed for teachers will incorporate lesson plan ideas, bibliographies and links to other websites; the second is designed for children with activities and stories. With the requested funding, these sites could be enhanced to include video, moving icons, sophisticated indexing, and sound. The National Museum of American Art (NMAA) developed a bilingual webzine in collaboration with the Texas Education Network and teachers throughout Texas, Nebraska and other regions. Its online curriculum about Latino art and artists has been used by 38,000 teachers. Additional funds will allow NMAA to provide new materials on different subjects.

The requested funds will be provided to projects across the Institution that enhance content material particularly focused on information and interactive activities available to the public and researchers outside the Institution.

**FY 2000 PROGRAMS**

**Conservation Biology ($1,500,000 and 10 FTEs) -** The Institution requests resources to establish a program focusing on three vital and integrative
ecological programs addressing invasive alien species, marine ecosystems, and conservation of vulnerable terrestrial habitats. Research staff from the National Museum of Natural History, Smithsonian Environmental Research Center, Smithsonian Tropical Research Institute, and National Zoological Park contribute to these programs, forming the largest aggregation of scientists focused on ecology and conservation in the world. Smithsonian research included in the Conservation Biology program includes:

_Invasive Alien Species ($770,000 and 5 FTEs)_ - The Institution requests resources to support enhanced research on causes, patterns and effects of alien invasive species. Invasive alien species threaten the economy, health, and natural resources of the United States. The President’s Council of Science and Technology, through its Committee on Environment and Natural Resources, now considers invasive species among the major damaging threats to the environment. The Smithsonian’s research expertise in systematics, biogeography, and ecology provide crucial ability to identify invasive species, to determine their global spread, and to assess their impacts in terrestrial, freshwater and marine ecosystems throughout the world. SERC is the nation’s leading center for research on causes and effects of marine invasive species. The National Invasive Species Act of 1996 designated SERC as the National Ballast Information Clearinghouse, which focuses on patterns of delivery of ballast water in commercial ships as the largest source of species introductions into U.S. ports from foreign waters.

SERC and NMNH cooperate with management agencies to provide expertise on biological characteristics of invasive species. Recent analysis by NMNH researchers shows that invasive species have caused major losses of plant biodiversity in the U.S., as well as extensive changes in the distributions of species around the world. Restoration research at NZP concentrates on conservation of wildlife affected by invasive species that cause diseases, alter habitats, and compete with native species.

The requested resources will permit staff to create a database on alien invasive species in three regions of U.S.coastal ecosystems (Chesapeake Bay, Alaska, eastern Florida), develop methods to coordinate marine invasive species data with patterns of ballast water delivery, and expand inventory of alien plant species in Hawaii. The request will also permit staff to expand the database on alien invasive species in coastal ecosystems in six U.S. regions and establish key research sites for measurement of geographic and temporal change of biological invasions.
The program will also initiate comparisons of biological patterns of invasion with the database in the National Clearinghouse on Ballast Water.

**Marine Ecosystems ($505,000 and 2 FTEs)** - The Institution requests resources to develop a research program on ecological changes and impacts of El Niño and La Niña in marine ecosystems. The International Year of the Oceans in 1998 underscores the vulnerability of coastal and oceanic resources. The Smithsonian Institution developed a broad-based program to measure the biodiversity and ecological changes in marine ecosystems, with special capabilities provided by the Institution’s unparalleled network of permanent coastal laboratories and long-term study sites along the western Atlantic, Caribbean Sea, and Pacific Ocean. The Smithsonian’s research staff use this network to identify patterns of environmental fluctuation at many geographic and temporal scales. El Niño and La Niña episodes are major oceanic features interacting with global climate change throughout the tropical and temperate latitudes of Latin America and North America. Research staff at STRI are studying the effects of these episodes on marine food webs, fisheries dynamics, and ecosystem interactions using predictive models developed from long-term data collected by the networked laboratories. Research at STRI analyzes impacts of these oscillating oceanic/weather episodes, comparing Pacific and Caribbean sides of the Panamanian isthmus. Taxonomic specialists in NMNH will undertake a large-scale survey of marine species richness and biogeography of the Pacific Ocean.

The requested funds will allow the Institution to establish key research sites to compare impacts of El Niño and La Niña in the Caribbean and eastern Pacific regions and develop conceptual models of ecological response to El Niño and La Niña in Central American waters. Scientists will measure impacts of El Niño on coral spawning and coral bleaching in Caribbean and eastern Pacific waters and initiate surveys of biodiversity at three main sites in the western Pacific Ocean.

**Conservation of Vulnerable Terrestrial Habitats ($225,000 and 3 FTEs)** - The Institution requests resources to enhance research and training programs to conserve key terrestrial habitats and develop cooperative programs for monitoring biodiversity.

Because habitat destruction is widely recognized as the leading cause for biodiversity’s current and rapid decline, scientists are increasingly concerned with understanding the underlying causes of species diversity.
and habitat loss, and monitoring critical habitats such as tropical rainforests. Using the Institution's global network of terrestrial research sites, this program will use a traditional strength of all four of the Smithsonian's biological units to create a major biodiversity inventory and monitoring initiative for a wide array of forest sites ranging from tropical rainforests to temperate deciduous forests. STRI's Center for Tropical Forest Science, which oversees the most intensive global forest monitoring program in the tropics, will examine how species diversity can be maintained in the tropical rainforests. NMNH's Biodiversity Forest Fragments Program will concentrate on the impact of habitat destruction on biodiversity in the Amazon, utilizing the world's largest conservation biology experiment. NZP will focus on key interactions of conservation and development, including the integration of rural communities and protected areas, agricultural practices and landscape ecology, and the evaluation of conservation methodologies.

The requested resources will support workshops on integrated conservation and establish comparative baselines of biodiversity in forests at several latitudes. They will also expand training programs in biodiversity and develop analytical and evaluation tools for assessing the impact of conservation activities.

Exhibition Renewal ($2,000,000) - The Institution requests funds to establish an exhibition renewal program to plan major exhibitions as Smithsonian buildings are scheduled for renovation. The Institution has begun a successful, systematic plan to carry out a major capital renewal program to ensure that its building systems are modern and sufficient to continue to serve a growing and more demanding public, to provide improved storage for the collections, and to provide safe and decompressed office and laboratory space for research, collections management, public programming and administrative needs. At the same time, the capacity to educate the public, to convey the results of the Institution's research, and to stimulate critical thinking about national issues is undercut by outdated and outmoded exhibitions in many of the buildings that are currently being renovated or that will be renovated beginning in the year 2000. Planned major reinstallations require years of preparation and millions of dollars beyond annual federal allocations to complete.

The requested funds will support the National Museum of Natural History's plan to create a central, awe-inspiring exhibition that integrates objects and knowledge from anthropology, geology, and biology as the
centerpiece of a major museum-wide reinstallation project. The exhibition will juxtapose spectacular objects such as dinosaurs, meteorites, towering plants, and stone heads from Easter Island against dramatic backdrop murals, and will weave together the threads of different disciplines into a panoramic picture of the world we know and the forces that created it. The Janet Annenberg Hooker Hall of Geology, Gems and Minerals at the National Museum of Natural History, which opened in the Fall of 1997, illustrates the level of excellence the Institution hopes to attain in future exhibitions dealing with the sciences.

The requested funds will also support the National Museum of American History’s Blueprint plan. The Museum wishes to heighten the visitor’s experience through new, permanent and changing exhibitions, enhanced orientation and way-finding, and innovative learning opportunities taking advantage of new technologies. These changes will afford visitors greater access to the Institution’s vast holdings and create a richer understanding of the nation’s history. The reinstallation of the Star Spangled Banner marks the first of many such blueprint projects. Through a public-private funding partnership, the flag will undergo two years of publicly visible conservation and then be reinstalled in a protective display with enhanced viewing.

Additional exhibition projects to be supported by these funds include those in the Patent Office Building. Renovation of the building, which houses the National Museum of American Art and the National Portrait Gallery, will begin in the year 2000.

The Exhibition Renewal Program will provide the necessary seed money to plan for updated exhibitions while major capital renovations are ongoing. Funds for research, planning, and preliminary design contribute to fund-raising by demonstrating the Smithsonian’s commitment to a project and providing an exhibition plan that can be shown to potential sponsors. Once a project has progressed through these early stages of development, potential sponsors are more likely to provide funding for final design, construction, and installation costs of an exhibition. The Smithsonian invests a great deal of effort in raising private funds for exhibitions. The requested funds will contribute to the success of this effort.

**Asian Pacific American Programming ($295,000)** - The requested resources will expand Asian Pacific American programming throughout the Institution.
Asian Pacific Americans come from a rich diversity of geographic, political, social, religious, and cultural backgrounds. Some Asian Pacific American cultural heritages are represented in art and ethnographic holdings. However, aside from the prominent "A More Perfect Union: Japanese Americans and the U.S. Constitution" exhibition about Japanese Americans during WWII, the historical and contemporary significance of the presence in the United States of Asian Pacific Americans needs greater representation in the Smithsonian’s collections, research, exhibitions, and current planning. In 1995, the Institution began efforts to incorporate the experiences of Asian Pacific Americans into its 16 museums and other offices.

In 1997, a Counselor to the Provost was appointed to lead efforts on Asian Pacific American issues. An advisory group of eight prominent citizens, chaired by former Congressman and Smithsonian Regent Norman Mineta, was established to make recommendations to increase Asian Pacific American representation in Smithsonian activities. In 1997 a survey of all Smithsonian archival holdings, artifacts, library collections, and programs that pertain to Asian Pacific American history and culture was compiled, published and disseminated. The Starr Foundation recently gave the Institution $50,000 to initiate a survey of Asian Pacific American museum collections around the country. This information will eventually be included in a publicly accessible database. Talks were facilitated between the curators of the NMAH exhibit, "A More Perfect Union," community members, and civic organizations to secure resources to update the exhibition and to digitize it in the future for a national audience. The Center for Museum Studies organized a professional development seminar for Asian Pacific American museum professionals in May of 1998. Thirteen museum professionals from New York, Los Angeles, Honolulu, and Seattle participated in this, the first program of its kind. The Institution is currently negotiating with the Japanese American National Museum to bring their exhibition, "From Bento to Mixed Plate: Japanese Americans in Hawaii," to the Smithsonian in the spring of 1999. A conference is being planned for 1999 to bring together Asian Pacific American scholars, artists, museum professionals, and civic leaders to examine the role of museums in Asian Pacific American communities and to challenge museums and community leaders to work more closely to meet educational needs.

Funds are requested in FY 2000 to establish a pool of funds managed by the Provost and carefully allocated to support a variety of activities designed to strengthen existing research, collections, exhibitions,
and programs that represent Asian Pacific American heritage throughout the Institution. The following describes major projects planned for FY 2000:

- Update existing exhibits - A number of SI exhibits have been identified that require modification in order to more effectively present Asian Pacific American history or culture. Among the exhibits are the Oceania hall in NMNH and the locomotive hall in NMAH. These funds would be used for the fabrication of labels and displays, as well as the acquisition and conservation of artifacts.

- Exhibition planning - Funds would support the design of a traveling exhibition developed with the NMAH Division of Military History addressing the World War II experiences of Asian Pacific Americans.

- Fellowships and training - The number of Asian Pacific Americans working in museums can be increased by encouraging the recruitment of young Asian Pacific American professionals into museum careers, introducing Asian Pacific American scholars to museum work, and making professional development opportunities available to current Asian Pacific American museum professionals. These funds would be used to create paid internship and fellowship opportunities for undergraduates, graduates and senior scholars and to produce professional development seminars in conjunction with the Center for Museum Studies.
### OFFICE OF EXHIBITS CENTRAL

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**ABSTRACT** – The Office of Exhibits Central (OEC) is the Smithsonian Institution’s most comprehensive exhibit producer. OEC is expert in the specialized needs of traveling, temporary, and permanent exhibitions. These include design, editing, graphics, model-making, fabrication, crating, and installation. The Office is also involved in concept development, object selection, product research, and prototype testing. OEC staff makes recommendations about the need for conservation assistance and conducts training in exhibit design and production with museums across the country and abroad.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Office of Exhibits Central. The Institution requires $92,000 for Necessary Pay for existing staff funded in this line-item.

**PROGRAM** – The Office of Exhibits Central is a full-service organization with specialized teams in design, editing, graphics, model-making, and fabrication. The Design and Editing team works with a curator’s preliminary ideas to develop an overall exhibition plan. Exhibit designers are responsible for all aspects of visual presentation. OEC’s exhibit editors work closely with designers and subject specialists to ensure that words, design, graphics, and artifacts work together to create an effective presentation. The graphics team provides silk-screening, typesetting, photo mounting, vinyl lettering, and conservation matting and framing. The model-making team creates scientifically and historically accurate dioramas, models, and mannequins. They also bracket artifacts for display and offer taxidermy services. The fabrication team constructs fine cabinetry and exhibit components. Sheet plastic work, artifact handling, and custom paint
finishes are a specialty. The packing and shipping team builds crates and packs exhibitions that travel across the country and around the world.

The Smithsonian Traveling Exhibition Service (SITES) was again OEC's main client for FY 1998. OEC designed and produced traveling exhibitions, such as "Going Strong: Older Americans On the Job," "We Shall Overcome," and "Jazz Age in Paris." OEC was actively involved in two Hispanic exhibitions, "American Voices" and the "Art of Jack Delano," and also provided dispersal and refurbishment services.

Some of the FY 1998 highlights for OEC are the exhibition design and production of "Between a Rock and a Hard Place, the American Sweatshop" for the National Museum of American History, "Jewels of LaLique" for the International Gallery, "Filipinos in Hawaii" for a joint Smithsonian-Bishop Museum exhibit at the State Department, "Tiger Diorama" for the National Museum of Natural History, "Speak to My Heart" for the Anacostia Museum, "Edward S. Curtis" for the Smithsonian Institution Libraries, and a new information desk at the Arts and Industries building for the Visitor Information and Associates Reception Center (VIARC).

OEC also provided its specialized services to many SI offices, including the Office of the Provost, the Center for Folklife Programs and Cultural Studies, VIARC, the Office of Government Relations, the Office of Special Events, the Center for African American History and Culture, the National Zoo, the Hirshhorn Museum, the Smithsonian Tropical Resource Institute, the Cooper-Hewitt National Design Museum, the Discovery Theater, and the National Postal Museum.

In FY 1998, OEC played a major role in collaborative workshops and seminars with other offices and museums. Staff are collaborating with the Museum Support Center move team providing workspaces and training in the processing, crating and storage of numerous NMNH artifacts. Training of OEC and SI staff, the active recruitment of volunteers and interns, and resource and information sharing among SI offices were OEC’s major efforts.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits of personnel and associated costs.
MAJOR SCIENTIFIC INSTRUMENTATION

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ABSTRACT - The development of major scientific instrumentation is vital to Smithsonian scientists remaining at the forefront of their fields. Because of the magnitude of the costs and the time required to fabricate major new instruments and to reconfigure existing ones, the Institution requests funding for such projects under this line item, rather than under individual ones. Since these projects require long-term development and multi-year funding, the Institution also requests that funds in this line item remain available until expended.

For FY 2000, the Smithsonian requests an increase of $1,600,000 to construct an integrated Field Emission Transmission Electron Microscope Laboratory at the National Museum of Natural History. The Institution requests these funds be available for two years. For FY 2000, base funds will be used to continue construction of the submillimeter telescope array ($4,744,000) and conversion of the Multiple Mirror Telescope ($2,500,000).

PROGRAM - Since FY 1989, the Smithsonian has received funding under this line item for two SAO projects: development of an array of submillimeter telescopes and conversion of the Multiple Mirror Telescope (MMT). SAO expects the submillimeter telescope array in Hawaii to be operating, in part, by the end of 1999.

Construction of an Array of Submillimeter Wavelength Telescopes - The last frontier of ground-based astronomy consists of observing the skies with telescopes sensitive to submillimeter waves—light with wavelengths between those of infrared and radio waves. SAO plays a major role in emerging submillimeter astronomy. Since FY 1992, SAO has been constructing components for its submillimeter array (SMA) of telescopes.
that will be located on Mauna Kea in Hawaii. The SMA will consist of eight movable antennas, two of which will be provided by the Academica Sinica Institute of Astronomy and Astrophysics, Taiwan. The prototype antenna for the SMA made its first celestial observations of the waning Moon on January 23, 1998.

The submillimeter array, with its unprecedented combination of wavelength coverage and ability to resolve fine spatial details, will enable SAO scientists to play a major role in understanding the processes by which stars and planets form and the mechanisms that generate prodigious amounts of energy in quasars and in active galaxies. When operational, the SMA will be a major scientific instrument of international stature. The array will be unique in the world in its combination of wavelength coverage and resolving power, and it will measurably enhance the scientific competitiveness of the United States.

Conversion of the Multiple Mirror Telescope - In April 1998, staff of the Multiple Mirror Telescope (MMT) Observatory, jointly operated by SAO and the University of Arizona, transported a 10,000-kilogram (5-ton) dummy mirror from SAO's Whipple Observatory Base Camp in Amado, Arizona, to the top of Arizona's Mount Hopkins. The surrogate mirror was packed and transported in a customized transporter tractor-trailer under test conditions. The successful practice run was an essential prelude for the transfer of the real 6.5-meter diameter mirror from the University of Arizona's Mirror Laboratory in Tucson, where it was ground and polished, to the top of Mount Hopkins. This trip to Amado and then up the mountain for installation in the modified MMT building should take place by Fall 1998. The six separate mirrors of the original MMT were removed earlier this Spring, following last light observations made on March 2, 1998, with this once daringly revolutionary telescope.

Future MSI Projects – Future projects being pursued by SAO include: a nine-telescope system array that will be capable of pinpointing and studying extraterrestrial sources of gamma rays with unprecedented accuracy (SAO opened this new field of very high energy gamma ray studies), a long-duration balloon-borne infrared telescope, and emerging detector and computing technology to study the rapidly changing brightness of astronomical objects. They will be funded jointly with other agencies, institutions, and countries.
EXPLANATION OF PROGRAM INCREASE - For FY 2000, the Institution requests an increase of $1,600,000 for construction of an integrated Field Emission Transmission Electron Microscope (FE-TEM) Laboratory at the National Museum of Natural History (NMNH). The primary purpose of the laboratory is to analyze, in partnership with the Carnegie Institution of Washington, tiny particles from within meteorites and from samples returned by upcoming NASA space missions. Exploration of the Solar system is perceived by the public as one of the most exciting areas of science. In fact, one of the most popular displays in the Janet Annenberg Hooker Hall of Geology, Gems, and Minerals (GGM) at NMNH is "Stardust," tiny diamond crystals formed long before the solar system was born. A photograph accompanying the object shows carbon atoms in one of the crystals magnified an astonishing 15 million times through use of an instrument similar to that proposed here. Over the next ten years the analysis of meteorite and returned mission samples, such as will be done at this proposed laboratory, will reveal an extraordinary wealth of new information about our world and its neighbors. Beyond the intrinsic importance of the science, Smithsonian scientists will be in the best position to teach and exhibit new scientific concepts in the future if they themselves are involved in the research that uncovers those concepts.

The instrument will also be used for the study of microstructures in a wide range of natural and experimentally-synthesized rocks and minerals and industrial materials as part of joint research programs at NMNH and the Carnegie Institution. Unique to this facility will be custom instrumentation for sample preparation and handling, that will facilitate transfer of the samples between different instruments for sequential measurements without the usual difficulty of relocating the samples once they have been moved. No such laboratory dedicated largely to extraterrestrial samples exists anywhere in the U.S. despite the fact that returned samples from a comet (a first) will be brought back by a NASA mission that launches in 1999. Specific scientific goals include:

- The search for and study of samples of the tiny interstellar dust grains from which the solid bodies in the solar system were first made; some of this material exists presently in the form of meteorites, and different varieties of it will exist in samples that will be returned from comets and asteroids. Work on the meteorite samples will begin immediately upon completion of the lab. Study of comet dust samples will necessarily commence after return of those samples to Earth.
• Studying at a microscale of how rocks weather on the surfaces of other worlds such as Mars. The fine-grained weathering material potentially contains information about the long-term history of the Martian atmosphere and climate. This program will begin by looking at weathering products within existing meteorite samples, and will later look at material returned by space missions such as the proposed Martian sample return in 2006.

• Studying the microstructures of natural and experimentally-synthesized minerals. All mineral crystals grow at the atomic scale, and this new instrument will provide fundamental information about the details of that process regardless of whether the crystals grew deep in the Earth or in the atmosphere of a distant star. Part of the goal is to develop new analytical techniques for these studies.

This request is for a two-year increase to the Major Scientific Instrumentation base in the amount of $1,600,000 each year in no-year funds. The requested Smithsonian funding will support equipment development, equipment purchase, development of laboratory space, and other non-salary costs. NMNH staff scientists will apply their skills to analyzing extraterrestrial collections, many of which will come from NASA space missions. Any incremental operating costs will be supported through new and existing NASA research grants. The Carnegie Institution of Washington expects to participate in development aspects including, as needed, ancillary instrument development costs, funding an on-going post-doctoral fellowship to the laboratory, and research. An advisory team is in place for coordinating the development of the new instrumentation and for aiding in the search for staff. Actual design and development would begin in late 1999, simultaneously with preparation of laboratory space. Preliminary installation and testing of equipment is anticipated for early 2001, followed by continued development and refining of the instrumentation over the following two years.
MUSEUM SUPPORT CENTER

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The Museum Support Center (MSC) provides state-of-the-art technology for scientific research, conservation, and collections storage in a specially equipped and environmentally controlled facility located in Suitland, Maryland.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Museum Support Center. The Institution requires $102,000 for Necessary Pay for existing staff funded in this line item. As in FY 1998, the Institution requests that the funds for MSC collections storage equipment and move costs remain available until expended.

PROGRAM - Specially-designed, state-of-the-art storage equipment is available at MSC to house the more than 31 million objects and object parts being relocated from the National Museum of American History (NMAH) and the National Museum of Natural History (NMNH). MSC accommodates collections storage in four sections (or pods) for three general types of needs: collections storage in cabinets, open shelving for biological collections in alcohol, and high-bay storage for very large objects. The facility also houses the Smithsonian Center for Materials Research and Education, as well as NMNH laboratories for molecular systematics, conservation, and other specialized research.

MSC Operations - The MSC staff provides administrative and shipping and receiving services, oversees safety and security operations, and maintains strict environmental and cleaning services required for the proper storage of museum collections. Staff also provide computer support services for administrative, research, and collections management data.
MSC Collections Storage Equipment - By the end of FY 1998, storage cabinets will be installed in 100 percent of Pod 1, 89 percent of Pod 2, and 50 percent of Pod 4. The shelving system to house collections stored in alcohol has been installed in 25 percent of Pod 3. The Institution is continuing to procure and install the balance of the collections storage equipment for Pods 2, 3 and 4, as well as the required shelves and drawers that fit into this equipment. The high-bay storage equipment in Pod 4 is scheduled to be installed in FY 1999. Installation of the remainder of the high-density storage system equipment in Pod 3 is anticipated to begin in FY 1999 and be completed in FY 2000.

MSC Collections Move - The characteristics, variety, volume and scope of the move of Smithsonian collections to the MSC (considering the extensive preparation and traveling distance of millions of objects and specimens from nine curatorial departments in two different museums) is unprecedented within the museum world and poses special challenges that must be addressed as part of the move. MSC Move staff technicians inspect the objects for pests and conservation problems, clean them, and stabilize them prior to their move. The collections relocated to MSC are properly curated, less crowded, and subject to better environmental control than collections in most other Smithsonian storage areas. As a result, they have far better prospects for long-term preservation and are significantly more accessible to researchers.

During FY 1998, the Smithsonian made significant progress on the transfer of collections and will continue to move collections to MSC in FY 1999. In FY 1998, collections from Anthropology, Entomology, Botany and Vertebrate Zoology in NMNH, and NMAH collections were successfully relocated. Preparations of oversized specimens that will be stored on the new shelving equipment system designed for Pod 4 are underway in order that they can be permanently relocated as soon as this storage system is completed in FY 1999.
SMITHSONIAN INSTITUTION ARCHIVES

### APPLICATION OF OPERATING RESOURCES

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**ABSTRACT** - The Smithsonian Institution Archives (SIA) maintains the historical records of the Institution, creates tools and products providing access to Smithsonian history, and oversees the policy governing management of the National Collections. SIA assures historical accountability for Institutional actions and programs while providing a resource for the study of American science, culture, and museum development.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Institution Archives. The Institution requires $56,000 for Necessary Pay for existing staff funded in this line item.

**PROGRAM** - The Smithsonian Institution Archives assists offices in managing their paper and electronic records, maintains a repository of over 20,000 cubic feet of historical records, develops tools for and assists others engaging in scholarly research, and oversees the Institution’s Collections Management Policy.

**Research** - SIA responded to over 2,000 research inquiries during FY 1998 while pursuing several special projects. The staff studied Smithsonian funding sources and trends in preparation for the Institution’s capital campaign, developed a database on SI relations with Latin America, and supervised the research projects of six fellows and three interns. SIA also completed Volume VIII of the *Papers of Joseph Henry* while participating in exhibits, lectures, press queries, and publications relating to the 200th anniversary of Joseph Henry, the first Secretary of the Smithsonian.
Collections Management - Staff conducted records surveys resulting in retention schedules for the National Museum of the American Indian, the Smithsonian Environmental Research Center, and the Office of General Counsel. Focusing heavily on preservation, SIA created a disaster recovery plan for the Archives, prepared 2,500 cubic feet of records for transfer to an off-site location, and undertook item-level restoration of the papers of James Smithson.

Two of SIA’s priorities, the electronic records program and cooperative strategies for meeting the needs of multiple Smithsonian repositories, fall within collections management. In FY 1998, the electronic records program issued guidance on the handling of e-mail records, developed presentations for staff on electronic records issues, and created a test site for capture of email in the office of the director, National Museum of American History. The cooperative strategies project has fostered the creation of a facility at National Underground Storage (NUS) for the placement of overflow records held by eleven different Smithsonian archives and libraries. The facility, which can accommodate over 25,000 cubic feet of materials, is expected to meet long-term, off-site storage needs for several years.

Publications - Staff finished placing online the 1996 Guide to the Smithsonian Archives. Guide data are now integrated into the Smithsonian Institution Research Information System (SIRIS). In addition, SIA completed two finding aids, Department of Aeronautics, National Air and Space Museum, 1966-1986, Record Unit 330, and Office of Exhibitions, National Portrait Gallery, circa 1968-1976, Record Unit 361.

Outreach/Public Programs - SIA’s homepage is now substantial. The third priority, digitizing holdings, was partially met through an expanded Web presence. New sites offer access to a variety of information including guidance on collections management, finding aids to selected archives collections, virtual exhibitions, a Joseph Henry homepage, and a heavily used collection of historic pictures available to the public upon request. The SIA site address is: www.si.edu/archives/.

NONAPPROPRIATED RESOURCES - General Trust funds provide partial support for special preservation efforts, the Joseph Henry Papers project, the Latino database, and the transfer of the Guide onto SIRIS. In 1998, SIA received a three-year grant from the Lounsbery Foundation totaling $119,000 in support of the Joseph Henry Papers project.
SMITHSONIAN INSTITUTION LIBRARIES

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ABSTRACT - The Smithsonian Institution Libraries (SIL) supports the Institution's mission by providing information access to Smithsonian scientists, scholars, curators, and staff, as well as others with research needs. To do this, it builds, organizes, manages, houses and preserves collections; provides reference services and consultation; employs appropriate technologies for accessing and disseminating information; and contributes to and draws from remote databases. It also shares collections and exhibitions with scholars, researchers, and the general public worldwide through interlibrary loan, international exchange, and the SIL Digital Library on the Internet and offers educational opportunities including exhibitions, internships, publications, lectures and user instruction in support of scholarly communication.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for Smithsonian Institution Libraries. The Institution requires $224,000 for Necessary Pay for existing staff funded in this line item. An increase of $350,000 justified in the Mandatory Increases section of this budget request will support extraordinary inflation for library materials.

PROGRAM - SIL promotes the Institution’s multi-disciplinary programs by supporting its research and education initiatives. Through its network of 19 branches in Washington DC, Maryland, New York, and the Republic of Panama, as well as through the Internet, SIL provides direct research support to both Smithsonian staff and the public.

SIL staff acquire and manage collections of 1.2 million volumes that include 7,000 print journals, 40,000 rare books, and more than 1,800 manuscript units. SIL makes these collections available to researchers at
the Institution and worldwide through the Smithsonian Institution Research Information System online catalogue. The catalogue is available on the Internet and the World Wide Web, as well as through the Online Computer Library Center, which is an international bibliographic database.

In FY 1998, SIL moved rapidly toward achieving its major initiatives of building digital resources, strengthening research collections and enhancing collections information.

Research - SIL is undertaking cooperative efforts with other research libraries in the Washington Metropolitan area to explore the feasibility of joint purchases of research materials in both hard copy and electronic form. As a member of the Chesapeake Information and Research Libraries Alliance (CIRLA), SIL added over 140 electronic journal titles to its holdings. CIRLA members also expedited interlibrary loan and reciprocal borrowing privileges. This year SIL reference librarians answered an average of 220 questions per day. SIL redesigned its homepage and those of all branch libraries to be more responsive to its many users through the World Wide Web.

With the help of the Seidell Endowment Fund, SIL's major initiative to build digital collections became a reality with the construction of the SIL Digital Conversion Center at 1111 North Capital Street and the purchase of digitizing equipment. The first digital publications are planned for Winter 1998. Since 1960, SIL, with support from the Seidell fund and the National Science Foundation, has published and distributed gratis copies of 281 scientific books and articles translated into English from other languages.

Construction will be completed on the National Museum of the American Indian Branch Library at Suitland, Maryland, in October. When the branch opens in FY 1999, the collections and services will support both the staff and visitors to the Cultural Resources Center. In late 1998, with the completion of renovations to Central Reference and Loan Services in the National Museum of Natural History, the collections will become fully accessible in accordance with the Americans with Disabilities Act guidelines. In FY 1999, SIL will open a rare book room in the National Museum of Natural History to provide improved security and environmental control for the most costly, fragile and rare items in SIL's collections, while offering state-of-the-art services for scientists and curators.
Collections Management - Furthering its initiative to enhance collections information, SIL added 6,448 records to the online index and finding guide to the literature of African arts and culture. To expand access to the SIL collection of historic trade literature, SIL staff are developing a finding aid to trade literature documenting the United States sewing machine industry during the 19th and early 20th centuries. As part of its initiative to build digital resources, SIL published an electronic edition of *Modern African Art: A Basic Reading List* compiled by Janet L. Stanley.

Collection Acquisitions - SIL acquires materials through purchase and gift and through a publication exchange program with 4,600 partners in 150 countries. An infusion of funding from the Congress in FY 1998 made it possible for SIL to continue its initiative to maintain strong research collections.

Exhibitions - Because of its popularity, Audubon and the Smithsonian*" was extended until July 1998 in the Libraries Exhibition Gallery. In April SIL produced an electronic version of its exhibition celebrating the 150th anniversary of the Institution, "From Smithson to Smithsonian: The Birth of an Institution," for the World Wide Web and distributed a related curriculum package to history and civics teachers of grades 9 - 12 in 5,000 schools nationwide. In September, "Frontier Photographer: Edward S. Curtis," which tells the story of the creator of famous images from *The North American Indian*, opened and will be on view until September 1999.

Public Programs - The Dibner Fund supported an illustrated lecture on "Visible Woman: Anatomical Illustration and Human Dissection in Renaissance Italy" by Professor Katharine Park of Harvard University.

NONAPPROPRIATED RESOURCES - General Trust funds support salaries and benefits of personnel, general operations and research. Donor/Sponsor Designated funds provide funding for specific programs and projects. Through the Libraries Special Collections and Ripley endowments, SIL librarians purchased books in many disciplines. The Dibner Fund supported three SIL/Dibner Library Resident Scholars of the History of Science and Technology.
SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

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ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) circulates exhibitions to cities and towns all across America. As a leading Smithsonian outreach operation, SITES offers millions of people beyond Washington the chance to experience the Institution's vast artifact holdings and research expertise. For many, it is a once-in-a-lifetime opportunity. Museums, historical societies, science centers, zoos, and aquariums are but a fraction of the many entities that host SITES programs. Libraries, theaters, schools, community centers, train stations, vacation parks, municipal buildings, shopping malls, and jazz clubs regularly feature SITES exhibits, enlivening visitors with a taste of the museums on the Mall. In FY 1998, 669 locations hosted SITES exhibitions in every state across the country.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Smithsonian Traveling Exhibition Service. The Institution requires $100,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - SITES exhibitions encompass all of the disciplines central to Smithsonian scholarship: life and space science, art and the decorative arts, craft, history, anthropology, popular culture, ethnic studies, and the humanities. Many SITES exhibits replicate installations in museums on the Mall. Others require retrofitting to accommodate small galleries and non-museum spaces. At any given time, more than 60 exhibitions travel or are in production. SITES introduces new programs constantly, replacing shows when their tours conclude with exhibitions that offer fresh ideas and collection resources, and up-to-the-minute research findings. In FY 2000, SITES will open exhibitions on topics so diverse as quilt-making, telescope
engineering, folk music, Burgess Shale paleontology, aviation history, traditional American crafts, horticulture, musical instruments, golf, and Hawaii’s endangered species.

**Educational Exhibition Packages** – Although original artifacts form the core of SITES programs, SITES exhibitions do more than showcase objects. They include interactive computer programs, film and video components, sound tracks, educational curricula, and discovery trunks—interpretive tools that stimulate visitor involvement and heighten the learning experience. Every SITES exhibit provides press materials, installation guides, packing specifications, artifact handling information, insurance coverage, and shipping. Exhibitors hosting SITES programs therefore receive not only the stamp of quality inherent in Smithsonian “products,” but also a complete exhibit package designed to encourage participation among people of all ages and backgrounds.

**Exhibition Access** - Exhibitors rent SITES programs on a first-come, first-served basis, scheduling six-to-eight-week bookings on established itineraries. A single SITES itinerary may encompass five years and as many as 40 cities. Or it may involve only two years and eight locations, as the rarity and fragility of artifacts warrant. In keeping with its commitment to reach the largest number and widest range of public audiences possible, SITES guarantees exhibit itineraries in a variety of geographic regions.

**Exhibition Partnerships** - SITES embraces partnerships as a means of extending the Smithsonian’s reach deep into grassroots America. A collaborative venture with State Humanities Councils uses a unique exhibit delivery system that secures a vital Smithsonian presence in rural communities across the country. Through a partnership with the American Library Association, SITES maintains a market niche for Smithsonian exhibitions in the public libraries of all fifty states. In conjunction with ARTRAIN, SITES circulates Smithsonian collections in specially designed gallery cars on board the U.S. rail system.

Between FY 1999 and 2001, SITES and the League of Historic Theaters will collaborate in taking the National Portrait Gallery’s blockbuster exhibition, “Red, Hot and Blue: A History of the American Musical,” to theaters and movie houses across the country. During the same time, SITES, NASA, and the nation’s Challenger Centers will roll out 100 copies of a 600-meter scale model of the universe designed for outdoor park installations at Challenger Space Centers. In FY 2001, SITES
and the Lila Wallace Reader’s Digest Fund will introduce an exhibition about America’s lost jazz shrines to the historic clubs and performance spaces where that music was born. And in the same year, SITES, in collaboration with the U.S. Department of Interior, will launch a partnership to present exhibitions in America’s National Parks.

A multi-year collaboration between SITES, the National Geographic Society, and Nissan Motor Corporation U.S.A. resulted in a major exhibition for young people about world geography, the mass distribution by Simon and Schuster of an educational CD-ROM, and special exhibition presentations at Silver Dollar City, one of the nation’s leading vacation theme parks. Alliances like these open new doors to financial support, public advertising, and exhibit delivery systems that capture audiences far beyond the museum setting.

A private sector partnership certain to draw large audience numbers from a broad spectrum of people will take place in FY 2000 with the opening of “Reflexiones.” Together with Time Warner, Inc. and J. Edward Olmos Productions, SITES will produce three different museum versions of this major photographic exhibition about Latino life in America: 5,000 small-format copies of the show will be sent to schools. Outdoor stadium concerts and a wide array of educational programs will complete the package, transforming what began as a lively but circumscribed museum exhibition into a major public event.

**Exhibitions Online** - Capitalizing on its unique delivery capabilities, SITES intends in FY 2000 to expand exhibition outreach through electronic technology. Once exhibitions are produced in three dimensions, all of their graphic and text components remain in digitized form to be rearranged, updated, animated, and linked to video and audio programs, creating entirely new program presentations. A rich body of pre-existing exhibitions form the backbone of SITES’ plan for electronic outreach. While the traveling exhibitions in SITES’ current program provide authentic experiences, even the most elaborate cannot convey the range of images, information, and ideas available through electronic communication.

**NONAPPROPRIATED RESOURCES** - General Trust funds provide support for salaries and benefits of personnel, fundraising, exhibit design and production, publications, materials, outside specialists, and contractual services. Donor/Sponsor Designated funds provide support for costs related to specific programs.
ABSTRACT - Administration includes executive management and related functions provided by the Offices of the Secretary, Under Secretary, and Provost. For FY 2000, the Smithsonian is seeking additional funding for programmatic increases for Administration. The Institution requests $1,065,000 for Necessary Pay for existing staff funded in this line item. Included in the Administration line item, but justified in the Mandatory Increases section of this request, are funds to cover the conversion of CSRS employees to FERS ($508,000) and funds for Institution-wide accessibility improvements ($100,000). These increases are offset by the return of excess Workers’ Compensation ($82,000).

PROGRAM - Office of the Secretary - The Office of the Secretary, supported by the Office of the Under Secretary and the Office of the Provost, oversees the Smithsonian Institution and maintains continuous communication with the Board of Regents and its committees. This line item also includes the Office of Inspector General and Institution-wide membership and development, planning, management analysis, and budgeting functions.

Office of the Provost - The Provost serves as the Smithsonian’s chief programs officer, providing leadership and integrated oversight for all of the Institution’s programmatic activities carried out in the museums, research institutes, central education and other program offices, as well as research support units including libraries and archives. The Provost reviews and evaluates the management of programs in research, exhibitions, and education outreach in the sciences, arts, and humanities; provides operational facilitation to the program units; and maintains close working relationships with directors and their boards.
In conjunction with the newly created Smithsonian Center for Latino Initiatives, the Provost will oversee a variety of projects designed to increase the awareness of the role and contributions by Latinos to the history and culture of the United States. In addition, the Office of the Provost is responsible for coordination of the Institution’s new Affiliations Program, institutional studies, and adherence to laws governing accessibility and scientific diving.

The Office also provides oversight of the International Environmental Science Program (IESP), which supports studies of the world’s ecosystem, especially in tropical and subtropical regions where the rapid rate of deforestation, diminution of coral reef cover, loss of suitable soil, and the threat to wildlife are of critical importance to biological diversity and global change. Minimal IESP funds are maintained in this line item to support short-term monitoring projects, while the remaining funds are distributed to the Smithsonian Tropical Research Institute, the National Zoological Park, the Smithsonian Environmental Research Center, and the National Museum of Natural History to support long-term studies. Staff support for biodiversity and environmental affairs included in the Office of the Provost provides coordination of related activities across the biological research institutes.

Office of the Under Secretary - The Under Secretary serves as the Institution’s chief operating officer and is responsible for the day-to-day administration of the Institution. This office oversees the Institution’s auxiliary and central business activities; the activities of the General Counsel; government relations activities, including liaison functions with Federal agencies, state and local governments, and organizations with related interests; central computing and telecommunications services; and communications with the public. This office also oversees all administrative, facility and finance functions, as well as special events.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for salaries and benefits of personnel and other related costs. Donor/Sponsor Designated funds provide support for costs related to programs and projects such as scientific research, fund raising, public relations, and planning studies related to executing recommendations of the Commission on the Future of the Smithsonian Institution. Government grants and contracts provide support for special initiatives, conferences, and seminars.
OFFICE OF PROTECTION SERVICES

APPLICATION OF OPERATING RESOURCES

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**ABSTRACT** - The Office Of Protection Services (OPS) protects and secures the National Collections entrusted to the Smithsonian Institution and ensures the safety and security of staff and visitors, while permitting an appropriate level of public access to collections and properties.

For FY 2000, the Smithsonian requests an increase of $2,000,000 to begin to replace and enhance the Smithsonian's security system. The Institution requires $1,287,000 for Necessary Pay for existing staff funded in this line item.

**PROGRAM** - The Office of Protection Services provides round-the-clock security for all Smithsonian facilities in the Washington DC area; the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland; the Cooper-Hewitt, National Design Museum and the National Museum of the American Indian in New York City; and the Smithsonian Tropical Research Institute in Panama. OPS security systems integrate uniformed personnel and electronic monitoring. Staff perform investigations services and escorts to provide a safe and secure operating environment. OPS is developing a security system modernization program that will better meet security and customer service requirements by providing integrated card access, alarm monitoring and closed-circuit television (CCTV) systems. OPS has also established a comprehensive training program to ensure that employees are prepared for their duties and responsibilities, especially as new electronic systems are installed.

**Modernization** - In connection with its long-term strategic plan for security system upgrades and modernization, OPS has collaborated with the United States Army Engineering and Support Center, Huntsville (USAESCH)
to develop a master plan to support planning, procurement and integration of electronic security systems at the Smithsonian Institution. The draft master plan will be finalized in the Fall of 1998. This modernization program replaces security systems in over 300 buildings, will affect over 12,000 employees and volunteers, and will integrate access-card readers, CCTV cameras, and alarm zones. Implementation of a new access control/photo pass and identification system for the Institution is a key component of this plan. In FY 1998, OPS initiated an access control/photo pass and identification system in the National Museum of Natural History.

**Training** - In FY 1998, the Office of Protection Services completed the first segment of its new training program for security officers. Over 500 officers completed the training, which included identification of core competencies for security positions, basic skills assessments, and standardized operational training for all officers. In FY 1998, 15 basic skills classes and 12 supervisory/management classes were conducted to support these skill levels. The second segment, which includes personal communication skills and technical training, is underway and will be completed in early FY 1999. The personal communication skills training will address the increasing demands on officers to resolve conflicts and provide customer service to the public. The technical training will support the implementation and operation of complex electronic security devices and systems. OPS has also collaborated with a contractor to develop a comprehensive two-week entry-level training program which can be delivered cost-effectively by in-house OPS training instructors.

**Operations** - In FY 1998, the Office of Protection Services developed a standardized alarm-testing program throughout the Institution’s facilities. Based on an operation research methodology from a study by the Massachusetts Institute of Technology, OPS completed a risk-assessment/staffing needs study of the Hirshhorn Museum and Sculpture Garden in FY 1998. This methodology links threat levels with asset value to yield a risk category, which translates into “levels of security.” This program derives staffing requirements from performance measures such as patrol frequency and response time. A study utilizing this methodology at the National Museum of American History was completed August 1998. OPS recently initiated a study of the National Air and Space Museum.

**EXPLANATION OF PROGRAM INCREASE** - For FY 2000, the Institution requests an increase of $2,000,000 to begin to replace the existing Smithsonian Institution Proprietary Security System (SIPSS) and enhance
electronic security system operations. Present system components are antiquated, and the age of the system components has made them unreliable. The present system also lacks the integration of card access, alarm monitoring, and closed-circuit television, which are now common standards for state-of-the-art security technology. Funding will address additional security system needs at the Smithsonian not currently performed by SIPSS, but reflecting the normal operational security systems standards for facilities like the Smithsonian. This security system modernization program will allow a safe and secure environment while permitting the appropriate access.

As a result of recommendations from a partnership with the U.S. Army Corps of Engineers' Electronic Security Center of Expertise in Huntsville, Alabama, and in response to internal Smithsonian needs and processes, OPS will begin a three-year program to replace SIPSS and modernize electronic security systems in each Smithsonian facility. The modernization program involves design, alarms, closed-circuit televisions (CCTV), access control, command and control and radio communications. It will provide a state-of-the-art, reliable and flexible security system.

The FY 2000 spending plan will include engineering support, training, installation, testing, and documentation at a number of Smithsonian facilities. The proposed plan initially includes the Freer Gallery of Art, Arthur M. Sackler Gallery, National Museum of African Art, the Ripley Center, Museum Support Center and the National Air and Space Museum.

The Smithsonian Institution will be able to maintain high standards of electronic security to ensure cost-effective protection of the Nation’s treasures, Smithsonian staff members and volunteers, and millions of visitors each year through this modernization program.

NONAPPROPRIATED RESOURCES - General Trust funds provide support for conducting employee background security investigations and the annual National Conference on Cultural Property Protection. For over twenty years, this conference has provided an opportunity for the diffusion of knowledge among security, facilities, library and administrative professionals throughout museums, libraries, universities and other cultural property institutions. The 1999 conference will be co-hosted by the J. Paul Getty Trust in Los Angeles, California.
OFFICE OF PHYSICAL PLANT

APPLICATION OF OPERATING RESOURCES

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ABSTRACT - The Office of Physical Plant (OPP) administers, maintains, and repairs 15 museum and art gallery buildings and grounds, as well as many other work and collection storage areas, by providing architectural, engineering, and facility planning services. In support of research, exhibitions, education, and public programs, OPP provides utilities, transportation, mail services, exhibit renovation, and many other related services. OPP also provides technical support to several Smithsonian units located outside the Washington, D.C. metropolitan area, including the Smithsonian Tropical Research Institute in Panama; the Fred Lawrence Whipple Observatory in Arizona; the Smithsonian Environmental Research Center in Edgewater, Maryland; and the National Museum of the American Indian and the Cooper-Hewitt, National Design Museum in New York City.

For FY 2000, the Smithsonian is not seeking additional funding for programmatic increases for the Office of Physical Plant. A net increase of $6,454,000, included in this line item but justified in the Mandatory Increases section, will support increases in the Institution’s central utilities, communications, postage, and rental accounts. The Institution also requires $1,123,000 for Necessary Pay for existing staff funded in this line item.

PROGRAM - Office of Physical Plant: Immediate Office - The immediate office administers facility projects and financial management for construction, maintenance and repair operations, and other support services within Smithsonian Institution facilities. It provides trade and craft support for the Institution that includes plumbing, electrical, wood-crafting, painting, and plastering efforts for Smithsonian units.
Architectural History and Historic Preservation Division - The Architectural History and Historic Preservation (AHHP) division establishes and oversees historical preservation policy and practices for the Smithsonian. AHHP functions as a center for research and maintains the Castle Collection of 19th century furnishings.

Design and Construction Division - The Design and Construction Division (DCD) provides project management and professional assistance to Smithsonian units in order to provide safe environments for visitors, staff, and the National Collections. It also continues to survey all facilities to identify any modifications needed to bring the Institution into compliance with the Americans with Disabilities Act. DCD oversees projects and manages financial resources for the Institution’s Repair, Restoration and Alterations and Construction programs. In addition to repairs and construction, DCD assists with exhibit construction and other space modification projects. Primary services include orchestration of planning, design, and construction activities; financial management of all projects; review of exhibit designs to ensure compatibility with existing building systems; and compliance with safety, health, and accessibility requirements.

South Group Facilities Management - South Group Facilities Management is responsible for minor maintenance, labor services, lamping, craft services, shipping and receiving, special events, safety, and, in consultation with the Smithsonian’s Office of Environmental Management and Safety, occupational and environmental health program planning and execution for the Arts and Industries and Smithsonian Institution buildings. The South Group Facilities Management staff also coordinates and monitors contracts for structural maintenance, waste and recyclable trash removal, pest control, and renovation projects for these buildings.

Quadrangle Facility Management - Quadrangle Facility Management provides a wide variety of support services to the Education Center of the S. Dillon Ripley Center, National Museum of African Art, Arthur M. Sackler Gallery, Smithsonian Associates, Smithsonian Institution Traveling Exhibition Service, and the Office of International Relations. These services include space scheduling, labor services, rigging, minor maintenance, lamping, shipping and receiving, and other related services. The Quadrangle Facility Management Office is also responsible for coordinating trash removal and pest control services.
NONAPPROPRIATED RESOURCES - General Trust funds provide support for salaries and benefits of personnel, related support costs, the Trust share of space rental costs for administrative activities located at L’Enfant Plaza, and support services offered to other units by the Office of Physical Plant. Donor/Sponsor Designated funds provide support for costs associated with the upkeep of Smithsonian gardens.
REPAIR, RESTORATION AND ALTERATION OF FACILITIES

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In order to make real progress in improving the conditions of the Institution’s buildings, the Smithsonian is requesting $63,500,000 for FY 2000 for repair, restoration and alteration (RR&A) of facilities. As mentioned in the Introduction, the FY 2000 estimate for this account combines the former repair and restoration account, the repair and restoration portion of the former construction and improvements account of the National Zoological Park, and the alterations and modifications portion of the central construction account.

The Institution is steward of the valuable and visible buildings that form a vital infrastructure for programs and activities, as well as providing a safe haven for the many irreplaceable collections that are made accessible to millions of scholars and visitors each year. Many of the buildings are themselves important icons of the Nation's cultural heritage, part of the Nation's "face" to the world, and are preserved with the intent of occupying them indefinitely. Insufficient funding for repair and renewal of the Institution's facilities has resulted in accelerated deterioration of the physical plant.

In May 1995, the Commission on the Future of the Smithsonian Institution expressed concern about the magnitude and continuing growth of the deferred maintenance problem and recommended an immediate investment in renovation and restoration of the Institution's facilities. Without it the Smithsonian will no longer present the image of a nation rich in cultural experience, in natural resources, and in its vision for the future.

\(^1\) Provided for comparative purposes. In FY 1998 and FY 1999 funds are contained in the Repair and Restoration of Buildings and Construction and Improvements, National Zoological Park accounts.
The FY 2000 RR&A request includes:

**Repair and Restoration**

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<tr>
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<td><strong>Subtotal</strong></td>
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**Alterations, Modifications and Planning**

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<td>National Zoological Park</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$7,500,000</strong></td>
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</table>

**TOTAL** $63,500,000

**Assessment of Facility Conditions** - Building systems and components have limited life expectancies. Despite planned preventive maintenance and repair efforts, their heavy and constant use has exacerbated the natural aging process of components. As building systems age, the risk of operational failure, unscheduled closings, and damage to collections increases dramatically.

The National Museum of Natural History (built in 1910 with wings added in 1960-1964 and the Smithsonian's largest building in terms of area at 1.3 million square feet) and the American Art and Portrait Gallery Building (built between 1836 and 1860) are already in seriously deteriorated condition. Two more buildings, the Smithsonian Institution (Castle) Building (1846) and the Arts and Industries Building (1879), are rapidly approaching the state where the increasing risk of building system or component failure threatens the closing of significant portions to public and staff activities and exposes collections to unacceptable risks of irreparable damage. Together, these four buildings represent 30 percent of the Institution's usable area and contain significant amounts of public space. The cost to renew these four facilities is estimated to be more than $200 million.

Although other Smithsonian buildings are not yet below the "Good" range in overall condition, periodic repair and upgrade of individual systems and components in these facilities is necessary to maintain them in efficient operating condition. Failure to renovate and renew on a planned
schedule and in a timely manner hastens decline of the overall condition of a building.

**Planned Renewal of Smithsonian Facilities** - The Institution seeks a balance between correcting the unacceptable condition of its four older buildings and maintaining the current condition of its other facilities through systematic renewal and repair. The Commission on the Future of the Smithsonian Institution concluded that, "A total of $50 million each year for the next decade would assure that present facilities are restored to the point of being safe and appropriate for people and for collections." While the Commission on the Future did not address the repair needs of the National Zoological Park properties, the staff has used a similar methodology to establish an estimated funding requirement of $10-$15 million annually for the next five years.

**Progress To Date** - The Institution is making some progress in ameliorating the most urgent facilities deficiencies with increased funding received since FY 1996. The most significant work includes replacing the roof at the American Art and Portrait Gallery Building, replacing the skylights and window walls at the National Air and Space Museum, and continuing major capital renewal at the National Museum of Natural History. The Institution is also actively designing major capital renewal projects at the American Art and Portrait Gallery, and the Arts and Industries buildings.

Current priorities for the National Zoological Park focus on maintenance, repair, and safety improvements to existing facilities, along with the general renovation of at least one major exhibit each year, to keep NZP facilities viable and exciting for the public. The account also funds expenses required to accomplish the work, such as relocation of animals. The Zoo contracts for most design, construction and improvement projects unless it is more cost effective to hire temporary staff to accomplish the work.

**SI (EXCLUDING NATIONAL ZOOLOGICAL PARK)**

**REPAIR AND RESTORATION, $50,000,000** - Despite the work accomplished, the Smithsonian has not been able to achieve the pace of work required to correct the substantial problems in its four oldest buildings because the funding level recommended in 1995 by the Commission on the Future of the Smithsonian Institution has not been
available. The Institution therefore requests a funding level of $50 million for FY 2000, excluding National Zoological Park needs. Funding at this level will allow the Institution to continue the timely renewal of the most deteriorated buildings, and to make ongoing repairs required to maintain current conditions in the newer buildings. As shown on the five-year plan that follows this narrative, significant amounts will be devoted to work in the four buildings in most critical need of renewal.

The Smithsonian expects to use the funds requested in FY 2000 to perform work in the following categories. The chart following the narrative provides a summary of projected expenditures by category of work for FY 2000 - FY 2004. The chart below illustrates projected facilities conditions by fiscal year 2004 at the $50 million level.

Chart 1: Projected Smithsonian Facilities Conditions in FY 2004 At $50 Million

**Major Capital Renewal** - The Major Capital Renewal category includes the cyclical replacement of major building systems and equipment and major renovation required ensuring long-term preservation of the buildings. Projects in this category are different in magnitude, expense, and planning complexity from routine ongoing restoration work, repair projects, or replacements undertaken when a piece of equipment fails. Work in this category primarily addresses the major replacement requirements for HVAC and electrical systems at the Institution’s older buildings where these and
other critical building systems are nearing the end of their useful service lives. The American Art and Portrait Gallery, Arts and Industries, Natural History, and Smithsonian Institution buildings are all now in need of major capital renewal.

Projects in this category involve complete replacement of heating, ventilating and air conditioning (HVAC), electrical, and plumbing systems, and restoration or replacement of exterior components such as facade, roof, and windows to ensure long-term operation and preservation of the building. Modifications to the building also improve energy efficiency, meet fire detection and suppression requirements, and correct hazardous conditions. By coordinating these kinds of tasks, the Institution saves money and avoids repeated disruption to activities in the building. The Smithsonian achieves operating efficiencies as well by designing new building systems and components to work together. For example, by installing multiple-paned windows and increasing insulation, the Smithsonian can select heating and cooling equipment with lower capacity. The equipment costs less to purchase and install, and long-term operating costs are lower. The impact of renovation work on programmatic activities is a key factor in planning a major project. Work of this magnitude causes serious disruption to activities in the building. The Institution must relocate staff and collections from the areas under construction to prevent damage, allow staff to continue working during the construction period, and ensure safety and continued public access. Major Capital Renewal projects are phased over a number of years to achieve the most efficient balance of cost savings while minimizing disruptions to public programs and staff activities.

In FY 2000, the Smithsonian plans to use $8.28 million for Major Capital Renewal work at the National Museum of Natural History, $20 million for renovation of the American Art and Portrait Gallery (Patent Office Building), and $0.9 million for design at the Smithsonian Institution Castle. Design of renewal work at the Arts and Industries Building will continue using prior year funding.

**Repairs, Restoration and Code Compliance** - The Repairs, Restoration, and Code Compliance projects primarily involve ongoing repairs and other work to meet safety and health requirements to keep the newer Smithsonian buildings at an acceptable level of performance. The majority of this work is accomplished by contract, with a small amount of work
accomplished by in-house forces when appropriate and cost effective. This work is described in six categories of routine repair projects.

**General Repairs** - Projects in this category include minor, unscheduled, but essential repairs that the Institution cannot anticipate specifically or that do not fit into one discrete category.

**Facade, Roof, and Terrace Repairs** Work in this category includes a variety of projects accomplished cyclically according to the life of the materials used. For example, most kinds of roofs need replacing nearly every 20 years, facade joints need recaulking and repainting about every ten years, and window frames and other exterior trim need repainting every five years. Smithsonian buildings require continuing facade work in order to restore and maintain intact the building envelopes.

**Fire Detection and Suppression Projects** - Smithsonian staff have developed a fire protection master plan for every major Smithsonian facility. Projects typically include installation of detection systems such as smoke alarms, suppression systems such as sprinklers, and architectural modifications to create fire zones by installation of firewalls and doors.

**Access, Safety, and Security Projects** - Projects in this category emphasize better access to its facilities for persons with disabilities, improve environmental conditions in buildings, and correct facility conditions that threaten the security of the National Collections. Work in this category includes:

- projects such as asbestos abatement and correction of ventilation problems
- modifications to ensure accessibility of public facilities, eliminating obstructions and overhead hazards, improving emergency warning systems, and providing seating space for wheelchair users and listening systems for the hearing impaired
- projects to improve the security of the collections, staff and visitors, such as installing security surveillance systems, improving exterior lighting, and installing card access systems to limit and document entry to certain spaces
Utility Systems Repairs - Projects in this category are to maintain, repair, and upgrade the HVAC systems, plumbing, electrical, and communications systems throughout the Institution's facilities. Ongoing renovations, repairs, and replacement of deteriorated equipment components are essential for ensuring reliable and energy-efficient operation of utility systems. The long-term preservation of the National Collections depends upon stable temperature and humidity conditions.

Advanced Planning and Inspection - The Smithsonian uses funding in this category to identify and analyze long-range repair and restoration needs and to design future-year projects in advance of funding requests. In addition to improving the accuracy of cost estimates, design of projects in advance of funding reduces escalation costs by enabling the staff to award construction contracts as soon as resources are appropriated. Needed repairs are also accomplished much sooner, thus preventing further deterioration and ensuring faster compliance with codes.

ALTERATIONS, MODIFICATIONS AND PLANNING, $6,500,000 - The Smithsonian requests $6.5 million in FY 2000 to continue the program of Alterations and Modifications (A&M) in its many facilities in the Washington DC area, as well as in Maryland, Massachusetts, New York, Arizona, and Panama. The Institution must make changes, improvements or minor additions to existing space and plan for future requirements in order to maintain the vitality and operating effectiveness of its programmatic activities. Funding in A&M will allow staff to contract for space planning and feasibility studies to ensure the best programmatic use of space, for design and construction of specific building modifications and minor additions, and for equipping of changed space. Collapsing A&M funding with R&R will facilitate merging A&M work with R&R work, wherever appropriate, realizing cost savings. Individual projects will cost no more than $1.0 million and will have little or no impact on facility operating costs. The program-driven A&M request will not exceed 15 percent of the total RR&A requirement.

As it did in the FY 1999 request, the Institution requests A&M funding at the program level in FY 2000 to make the most efficient use of the funds for the highest priority work. The Smithsonian has identified requirements in excess of $12 million. However, the relative urgency of individual projects, and the amounts required to complete them, can vary in response to changing program directions.
Among the current priorities for funding in FY 2000 are projects such as demolition of exhibit halls and other space modifications at the National Museum of Natural History, completion of housing at the Smithsonian Tropical Research Institute Barro Colorado site, and installation of compact shelving at various Smithsonian Institution Libraries locations. Staff will also conduct space planning and feasibility studies of future requirements, and complete design of A&M projects to be constructed in future years.

NATIONAL ZOOLOGICAL PARK

REPAIR AND RESTORATION, $6,000,000 - The National Zoological Park is responsible for the renovation, repair and preventive maintenance of its facilities. The National Zoological Park (NZP) maintains over 800,000 square feet of exhibition, animal care, and research facilities spread over 167 acres at Rock Creek Park and over 230,000 square feet of facilities on 3,150 acres at the Conservation and Research Center (CRC) in Front Royal, Virginia.

The Zoo strives to maintain a safe environment for its visiting public and staff, provide ecologically suitable and comfortable enclosures for the animals, and maintain all buildings in sound condition. In order to provide an incremental increase in the annual level for improving the condition of the buildings, outdoor exhibits, visitor amenities and utilities, and stabilize maintenance of existing facilities at Rock Creek and Front Royal, the Smithsonian is requesting $6 million for FY 2000 for repair and restoration of facilities at the National Zoological Park.

A condition analysis of NZP's facilities was prepared, similar to that which was conducted of the Institution's other museums and major buildings. The chart below plots the current position of the Zoo's major facilities on a curve in relation to their overall expected life. The curve represents a composite rate of deterioration for all building systems over an estimated 40-year life span. The NZP buildings were placed on the curve according to their estimated remaining useful life. Parameters used to assess existing conditions were watertight enclosure, age and condition of HVAC and electrical systems, and compliance with current codes and industry operating standards.
Chart 2: National Zoological Park Facility Conditions, FY 1998

The chart indicates that the facilities with the most serious deficiencies are the Holt House, Hardy Hoof, Bear exhibits, Australia Building, Genetics Lab, Property Shelter, Deer and Tapir Buildings, Lion/Tiger Building and General Services Building.

Major exhibits, including the Reptile Building, Elephant House and Seal/Sea Lion Exhibits, are rapidly approaching the state where the increasing risk of building system or component failure threatens closing of the exhibits to public and staff activities, and exposing the collection to unacceptable risk.

An analysis of the existing building conditions has been prepared indicating an immediate need for more than $25 million for renovation and repair of facilities and infrastructure at the Rock Creek site alone. An
assessment of facilities at Front Royal will be complete this year to determine the condition of facilities at that site.

**Rock Creek** - There are approximately 26 major structures and 40 minor ones on the 167-acre site at Rock Creek. The entire site and all of the older buildings are listed on the National Register of Historic Places. The buildings constructed before and during the Work Projects Administration (WPA) era (c. 1935-1945) are considered a valued portion of our national heritage.

Construction of facilities and infrastructure at the Rock Creek site was begun over 107 years ago and the site was subsequently developed one area at a time. Much of NZP’s physical plant is technologically outdated and at least one third of the major exhibit buildings have reached or are approaching the end of their useful life. These facilities require complete renovation of exterior structure (roofs, windows, doors, skylights); animal habitats, mechanical, plumbing, fire alarm, fire protection; and electrical systems; as well as updating of educational information and improving accessibility.

The 4,160 KVA electric distribution service must be upgraded to the more efficient, higher capacity 13,000 KVA electric service, and most building primary and secondary distribution systems must be upgraded to meet code and safety standards, exhibit needs and animal requirements.

Other deficiencies include:

- obsolete and failing utilities, including gas, steam distribution, water supply, and storm drainage systems
- obsolete fire alarm and smoke detection systems and lack of central monitoring for the safety of staff and animals
- practically nonexistent central monitoring of animal life support systems including water treatment, heating, ventilating, and air conditioning
- rapid deterioration of primary and service roadways and bridges

As major components of the building systems age, the risk of operational failure, unscheduled closings, and danger to the animal collections and research efforts increases dramatically.
**Front Royal** - The Conservation and Research Center (CRC), located on a 3,150-acre site at Front Royal, is devoted to the conservation of endangered wildlife through programs in propagation, research, and international biodiversity training. There are more than 100 structures at CRC, including animal shelters, research laboratories and residences. The property has more than 2.5 miles of roads, 20 miles of jeep trails, and 30 miles of fences. The CRC facilities and infrastructure were constructed over a period of 85 years.

The repair program at Front Royal for FY 2000 includes renovating, repairing and upgrading the physical, environmental, and operating systems that affect the facility's security and improve the efficiency of energy use and scientific operations.

**ALTERATIONS, MODIFICATIONS AND PLANNING, $1,000,000** - Funds are required each year to change and revitalize exhibits. As technology and research bring new facts to light, selected exhibits must be brought up to date. As facilities are renewed, the exhibits must also be renewed to maintain visitor excitement and interest.

The condition of visitor and staff support areas has not been addressed at NZP for many years. As staff changes are made and programs are reorganized, it is critical that some spaces be altered or modified so they are functional. As structural repairs are made, damaged spaces must be restored and finish materials replaced.

Funding of $1.0 million is required in FY 2000 to begin to meet the following needs: accessibility requirements for the main auditorium at NZP, as well as modifications to support improved audio-visual technology, replace worn seating and carpeting, and acoustical improvements; and structural modifications to several existing buildings for staff needs.
## SMITHSONIAN INSTITUTION

**Repair, Restoration and Alteration of Facilities**  
*(Including National Zoological Park)*  
**FY 2000 - FY 2004**

(Dollars in Millions)

<table>
<thead>
<tr>
<th>CATEGORY TITLE</th>
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<th>FY 2000 REQUEST</th>
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CONSTRUCTION

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Plans for facility development represent a major investment in the continuing vitality of all Smithsonian programs, whether they are for collections management, research, public exhibitions, or education, as well as its many support services. The Institution requests $22 million in FY 2000 to carry out these plans. As addressed in the Introduction, the FY 2000 estimate for the Construction account now includes the National Zoological Park’s construction projects. Alterations and Modification projects previously contained in the Construction account are now being requested in the Repair, Restoration and Alteration of Facilities account. The five-year construction program is summarized on the chart following this narrative.

The FY 2000 Construction request includes:

**Major Construction**
National Museum of the American Indian, Mall Museum $19,000,000

**Minor Construction**
Smithsonian Astrophysical Observatory, Hilo Base Building 1,000,000
Smithsonian Environmental Research Center, Infrastructure 1,000,000
National Zoological Park, Aquatics Exhibit 1,000,000

TOTAL $22,000,000

MAJOR CONSTRUCTION

National Museum of the American Indian Mall Museum ($19,000,000) - Public Law 101-185, which created the National Museum of the American Indian (NMAI), authorized the Institution to construct three facilities to house the new museum and its collections. The Museum’s main exhibition building will be constructed on the National Mall near the foot of Capitol
The location, adjacent to the world's most frequently visited museums, will provide excellent exposure for Native American artifacts and related museum activities centered on Native American culture. The building, which will contain approximately 250,000 square feet of space, will house permanent and changing exhibitions, reference and resource areas, an auditorium, retail areas, and space for performances and other public programs. The other NMAI buildings include the George Gustav Heye Center, which opened in New York City in 1994 and provides 82,000 square feet of exhibition and public program space, and the Cultural Resources Center now under construction in Suitland, Maryland, which will house more than one million artifacts in the Museum's collection and related care and study activities in 145,000 square feet of space when completed in late 1998.

The Institution has completed overall programming and planning for the new Mall Museum, and the National Capital Planning Commission and the Commission of Fine Arts have approved the conceptual design. The project is now in the detailed design stage, which includes the specific layout of spaces and identifies building systems, architectural features, building materials and finishes.

The Institution received $29 million in FY 1998 to begin construction of the Museum and anticipates an additional $16 million in FY 1999. For FY 2000, the Institution requests $13 million to complete construction and $6 million to equip the building. The current schedule calls for opening the building to the public in 2002.

**MINOR CONSTRUCTION**

**Smithsonian Astrophysical Observatory, Hilo Base Building ($1,000,000)** -
The Smithsonian Astrophysical Observatory’s (SAO) Submillimeter Array (SMA) is a major initiative by the Smithsonian to place a state-of-the-art radio telescope on the summit of Mauna Kea in Hawaii. The SMA will be used for the investigation of the universe using a unique combination of high resolution and high frequencies. Located at the high altitude of Mauna Kea, the Array is expected to produce fundamental improvements in our knowledge of the galaxy, most especially in processes involving interstellar material such as the formation of stars. Some elements of the SMA are now being constructed at the site.
The operation of the instrument will be complex and will require the support of many scientists, engineers and technicians on a daily basis. After assembly of the array, it will be maintained and operated by a permanent support staff of 20-25 living on the island of Hawaii. However, due to the elevation and the difficult working conditions at the SMA summit site, support staff must be located at a base facility closer to sea level. Repairs and many of the operations will be done from the base facility with only a small day crew traveling to the instrument on any given day.

SAO had originally planned to lease space to meet the base facility requirements in a building to be developed by the General Services Administration (GSA). The GSA project was canceled, however, and SAO must now construct its own facility. The Institution requests $1.0 million in FY 2000 to design the base facility at Hilo. The facility will include 12,000 square feet of electronics laboratories, offices and support space. The building will be constructed near the base operations facilities of other telescopes on the Mauna Kea summit, in the University of Hawaii at Hilo Science Park. This location provides excellent access to the summit roads, communications hub, and to a larger scientific community with which to exchange ideas. The Smithsonian expects to have cooperative observing programs with two other radio telescopes with base facilities at the site, and this arrangement will contribute to attracting qualified personnel to what would otherwise be a remote and difficult work site. The Institution will seek the remaining funds of $3.5 million for construction, equipment and furnishings in FY 2001.

**Smithsonian Environmental Research Center, Infrastructure ($1,000,000)** - The Smithsonian Environmental Research Center (SERC) is the Institution's major center for ecological research and environmental education. SERC conducts long-term interdisciplinary studies on aquatic, terrestrial and atmospheric systems. One major research program at SERC quantifies the effects of atmospheric deposition and land use on ground water, streams, and estuaries. Another major program addresses the complexities of landscapes and the biological consequences of natural and human disturbances. Another focuses on the control and integration of population, communities, and ecosystems at the estuarine boundary between the land and the sea. SERC is a major resource of knowledge and expertise to many constituencies, including schools, governments, research institutions, and the general public.
Research and public programs at SERC are providing to scientists and legislators the information needed to make decisions on the profound environmental issues of the day. Federal appropriations and grants, as well as other public and private sources, support this research. Efficient facility infrastructure is required to support the research program and to serve as an example of environmental stewardship to corporate, private and governmental entities.

Construction funds are requested to design and implement infrastructure improvements at SERC. Included in the work are projects that manage storm-water runoff from the main research facilities, provide safe and efficient roadways, enhance sewage treatment facilities, and optimize energy efficiency through construction of a modern central utility plant. For FY 2000, the Institution requests $1.0 million to design and begin construction of a central utility plant. Additional funds will be requested to complete infrastructure improvements in future fiscal years.

**National Zoological Park, Aquatics Exhibit ($1,000,000)** - Water is the cradle of life. This exhibit explores the wonder of water in its many forms, how it shapes life on earth and sculpts the earth, the adaptations needed to live in water, water quality issues, and how we use water. In addition to renovating a previously closed area, this exhibit brings to life the world of water while introducing visitors to a theme which will be integrated throughout the Zoo in the coming years.

For this exhibit, a total of $2.4 million was appropriated between FY 1993 and FY 1995. Funds have been expended for planning and conceptual design and $1.6 million is committed for exhibit design and site work. The Institution requests $1.0 million in FY 2000 to complete site work requirements that will include the restoration of the pond area, construction of a valley trail and a waterfall, preparations of the wetlands area, and preparations for plantings. Anticipated resources totaling $1.3 million through fundraising will complete the funding requirements for this $4.7 million project.
### Major Construction

**National Museum of the American Indian Mall Museum**

- **Plan/Design:**
  - Federal: 13.0
  - Non-Fed: 9.3
  - Federal Anticipated: 3.7
- **Construction:**
  - Federal: 87.0
  - Non-Fed: 29.0
  - Federal Anticipated: 29.0
  - Federal Request: 16.0
  - Outyear Costs: 13.0
- **Equipment:**
  - Federal: 10.0
  - Non-Fed: 4.0
  - Federal Anticipated: 6.0
  - Outyear Costs: 19.0

### Minor Construction

**Smithsonian Astrophysical Observatory Hilo Base Building**

- **Plan/Design:**
  - Federal: 1.0
  - Outyear Costs: 1.0
- **Construction:**
  - Federal: 3.5
  - Outyear Costs: 3.5
- **Equipment:**
  - Federal: 0.0
  - Outyear Costs: 1.0

**Smithsonian Environmental Research Center Infrastructure**

- **Plan/Design:**
  - Federal: 1.0
  - Outyear Costs: 1.0
- **Construction:**
  - Federal: 3.8
  - Outyear Costs: 3.8
- **Equipment:**
  - Federal: 0.0
  - Outyear Costs: 1.0

**National Zoological Park Aquatics Exhibit**

- **Plan/Design:**
  - Federal: 1.0
  - Outyear Costs: 1.0
- **Construction:**
  - Federal: 0.0
  - Outyear Costs: 0.0
- **Equipment:**
  - Federal: 0.0
  - Outyear Costs: 0.0

### Summary

- **Plan/Design:**
  - Federal: 9.3
  - Non-Fed: 3.7
  - Federal Anticipated: 0.0
  - Federal Request: 3.0
  - Outyear Costs: 0.0
- **Construction:**
  - Federal: 29.0
  - Non-Fed: 29.0
  - Federal Anticipated: 18.0
  - Federal Request: 13.0
  - Outyear Costs: 7.3
- **Equipment:**
  - Federal: 0.0
  - Non-Fed: 4.0
  - Federal Anticipated: 0.0
  - Federal Request: 6.0
  - Outyear Costs: 0.0

**Total:**

- Federal: 38.3
- Non-Fed: 38.7
- Federal Anticipated: 18.0
- Federal Request: 22.0
- Outyear Costs: 7.3

(Dollars in Millions)
Smithsonian Institution
Strategic Plan

...to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an Establishment for the increase and diffusion of knowledge...

September 1998
MISSION

The mission of the Smithsonian Institution is the increase and diffusion of knowledge.

GOALS

- Increase knowledge through research activities and use of the Smithsonian collections.
- Diffuse knowledge through exhibitions, publications, programs, electronic communications, and affiliations; and through improvements in educations and museum training opportunities.
- Support increased knowledge and diffusion through improvements in finance, management, and physical infrastructure of the Institution.
MISSION STATEMENT

To carry out its mission of increasing and diffusing knowledge, the Institution:

- performs fundamental research
- publishes the results of studies, explorations, and investigations
- preserves for study and reference more than 140 million items of scientific, cultural, and historical interest
- maintains exhibits representative of the arts, history, technology, aeronautics and space exploration, and natural history
- participates in the international exchange of learned publications and scholars
- engages in programs of education and national and international cooperative research and training

The mission of the Smithsonian Institution has remained the same for the 150 years of its existence: the increase and diffusion of knowledge. These words are taken from the last will and testament of James Smithson, the English benefactor and man of science who had never set foot in the United States, yet who bequeathed his whole estate...

...to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an Establishment for the increase and diffusion of knowledge...

Written in 1826, these words are the only guidance James Smithson offered to the Institution that bears his name today. Three years later, he died, and six years after that, his nephew died without heirs. Smithson’s estate then passed on to the United States which, under the Act of July 1, 1836, accepted the gift. In 1838, eleven boxes of gold sovereigns, valued at $508,319.46, were deposited with the United States Mint in Philadelphia.

Following eight years of debate in the Congress, the Organic Act of 1846 (20 U.S.C. 41 et seq.) was enacted on August 10, 1846. Under its terms, Congress established the Institution in its present form and provided for the administration of the trust, independent of the Government itself, by a Board of Regents and Secretary, to whom are assigned broad discretion to determine the most appropriate
means of increasing and diffusing knowledge. During the long debate preceding the Act, different groups had proposed various functions for the Smithsonian, including a national university, normal school, school for the blind, national library, and a national museum of the arts and sciences. Some proponents focused on the increase of knowledge and some on its diffusion, while others emphasized that the trust was not intended to benefit the United States only, but the world at large. Although the university and school functions were abandoned, the Act of 1846 did provide for most of the other proposals:

...the Board of Regents...shall cause to be erected a suitable building...with suitable rooms and halls for the reception and arrangement...of objects of natural history, including a geological and mineralogical cabinet; also a chemical laboratory, a library, a gallery of art, and the necessary lecture rooms...

In summary, James Smithson, in bequeathing the whole of his property “for the increase and diffusion of knowledge,” created a charitable trust with the United States as trustee for purposes not limited to the national interest, but for the benefit of all mankind. In the Act of July 1, 1836, Congress accepted the Smithson trust with its commitment to the trust, Congress has, from the start, supplemented trust resources with appropriated funds and property.

This unique combination of a privately endowed Institution, administered by a Board of Regents independent of the Government, and the continuing support of the United States as trustee, in generous fulfillment of its pledge, has made possible the achievements of the Smithsonian. Contributions from private donors, inconceivable in 1836, have created the great national collections, and continuing additions to the Smithsonian’s trust funds have maintained the Institution’s central resource for initiative and integrity. For its part, the Congress has responded

The Organic Act of 1846, Section 3, provided:

That the business of the said Institution shall be conducted at the city of Washington by a board of regents...to be composed of the Vice-President of the United States, the Chief Justice of the United States...; three members of the Senate, and three members of the House of Representatives; together with six other persons, other than members of Congress...

James Smithson
(1765-1829)
with the very substantial Federal support that has been essential to the growth of the Institution and to its far-reaching services to the public for more than a century and a half.

As noted previously, the Organic Act established the Board of Regents. Subsequent legislation amended the composition of the Board by increasing the number of citizen members from six to nine. In this century, the Regents have sought specific legislative authority for some activities that further the trust, most particularly those requiring the appropriation of large sums of Federal money. However, neither those statutes nor the ensuing appropriations have altered the powers of the Regents or their independent authority.

Across the years, advisory groups have been formed to address specific needs identified by the Regents. For example, based on growing evidence of the need for increased cooperation with entities outside the Institution, the Smithsonian Council was established in 1966. As planned, the Council, consisting of not more than 25 members, meets to advise on matters affecting the progress of science and learning within the Institution. Council members are appointed on the basis of distinguished attainments in scholarship, research, and understanding, and are drawn principally from those active in the learned professions. The National Board was established in 1971 as another advisory board for Smithsonian management. It consists of 50 members from across the country who assist with Institutional advancement and outreach, and provide expertise on business and operational matters. In addition to these two pan-Institutional bodies, many Smithsonian units also have advisory boards and commissions. A complete list of these boards and an organization chart accompany this document.
KEY EXTERNAL FACTORS

In September 1993, the Institution’s Board of Regents commissioned a group of citizens to ponder the future of the Institution. The Commission on the Future of the Smithsonian was charged with “…an examination of the Smithsonian, its mandate and its roles, and an examination of the cultural, societal, and technological factors that influence its capacity to act.” The Commission issued its report in 1995. As part of its efforts, the Commission reviewed the setting of the Smithsonian, that is, the environment in which the Institution operates, and also addressed what changes the Institution might face in the future. The following summary of the Commission’s findings represents the key external factors that the Institution must consider in developing and implementing goals and objectives that will enable it to fulfill its mission.

From the time of James Smithson’s bequest, there have been enormous changes in the nation, beginning with the growth in population. Worldwide movement of people has brought ever greater ethnic and racial diversity to this country. Increased diversity and greater participation in public life by various segments of the population have resulted in more vigorous debates about values. For an educational institution like the Smithsonian, such elements enrich the cultural environment and offer new opportunities. Interactions between nations and their peoples have also changed dramatically, to a large extent as a result of technology.

Changes since the mid-1800s:

☐ Scientific advances have vastly expanded the world of knowledge in the Institution’s domain.

☐ The natural environment is under extreme pressure.

☐ Technology has permanently altered the nation and the world.

☐ Concomitant with technological changes and interacting with them have been enormous social and political changes.

☐ More of the nation’s people are educated through high school and college.
Just as the nation today is vastly different from the way it was in 1846, so it will continue to change in the decades to come, with the pace of change accelerating. The population is aging. The proportion of the population who are members of racial or ethnic minority groups will increase in the decades ahead. As recently as 1990, these groups represented one in five Americans. According to Census Bureau projections, by 2050 about half the population will have origins in these groups.

Popular sensibilities and interests continue to evolve. Scientific understanding is deepening, and the enhanced ability to communicate speeds the awareness of these and other changes. The Institution’s principal future challenge is to reflect a rapidly changing society, to change itself, and to be a contributor to the richness of that society while being the treasury of the past.

Flexibility in programs, outlook, finance, administration and governance will be one requirement for dealing with changing challenges and opportunities. New, alternative ways to expand the reach of the Institution and reflect new developments can be exploited.

“This Institution has for many years played a vital part in Americans’ sense of their nationhood. As the United States becomes an even richer composite of cultures and peoples, the Smithsonian’s role as a national meeting place will become even greater, representing the satisfying possibilities of our diverse society.”

I. Michael Heyman, Secretary
The following goals and related objectives collectively represent the priorities of the Smithsonian Institution, and will set the framework for program activities and resource allocations during the next five-year period. While the goals and objectives are numbered and presented in a certain order, this presentation does not represent an order of priority among them. Indeed, many of the goals and objectives presented here are inter-related in ways that would not permit one to be achieved without impacting on or drawing from one or more of the others. Most importantly, it must be noted that achievement of these goals and objectives is largely dependent on the level of resources available to the Institution during the planning period.

Included with each goal and objective is a set of strategies for meeting them, and a list of possible areas of measurement to be used in determining if the objectives and goals have been met. An annual performance plan for each year, beginning in fiscal year 1999, will include the specific goals, strategies and measures that the Institution will use to measure its progress toward meeting its strategic goals.
GOAL I
Increase Knowledge Through Research Activities and Use of the Smithsonian Collections

OBJECTIVE 1
Support research based on collections, other research areas of excellence within the Institution, and long-term global projects.

STRATEGIES
- Continue to foster the identification and reward of excellence in research.
- Determine areas of the collections that could become the focus for research at the Institution.
- Facilitate linkages among researchers across disciplines, and with other research institutions worldwide, including increased support for fellowships.

AREAS OF MEASUREMENT
- Independent assessments of research programs as to their productivity, quality and relevance.
- Continued use of peer review and other evaluation methodologies.
- Increased support of fellowships.
- Continued dissemination of research findings through publications, electronic technology, and other means.
- Productivity of relationships between researchers across disciplines and in different research areas.
OBJECTIVE
Provide for management of the Smithsonian collections as central resources for research, public access, and the bases for other program activities.

STRATEGIES
- Continue to refine policies for future acquisitions of collections.
- Keep policies current for management of collections, including access, storage, location and conservation.
- Continue to review and improve storage and conservation of collections.
- Continue electronic cataloging and digitizing images of collections.
- Work toward strengthening technology infrastructure and linkages of computerized databases of the catalogued collections and images of objects.

AREAS OF MEASUREMENT
- Continued implementation of the Institution’s collections policy, incorporating acquisition, access, storage, conservation, and sharing through loans.
- Improvements in storage of collections.
- Continuation of research on collections care and conservation.
- Seek to increase the number of computerized collections databases and digitization of selected collections.
- Seek to increase the number of linkages of databases, both of collections and images of objects.
GOAL II
Diffuse Knowledge Through Exhibitions, Publications, Programs, Electronic Communications, and Affiliations; and Through Improvements in Education and Museum Training Opportunities

OBJECTIVE 1
Provide exhibitions, publications and programs that are balanced and of the highest quality; assure appropriate representation of the contributions of various ethnic groups to the cultural and artistic heritage of the United States; enhance presentation of research and education activities; and reach under-served audiences.

STRATEGIES
- Continue to refine procedures for review of plans for major new exhibitions.
- Continue planned schedule of exhibition renewal and restoration, in line with determined priorities.
- Continue program of traveling exhibitions and other means of sharing collections and research outside of Washington.

AREAS OF MEASUREMENT
- Continue implementation of new exhibition scheduling system.
- Quality and quantity of exhibitions aimed at providing outreach to under-served or under-represented groups.
- Quality and quantity of traveling exhibitions.
- Survey of exhibition visitors to determine their perceptions of the exhibitions and if they received intended message.
- Quality and quantity of new exhibits, and restoration, renewal, or expansion of existing exhibits where required.
OBJECTIVE 2
Continue to take advantage of the opportunities provided by electronic communication and information technology.

STRATEGIES
☐ Continue to expand and renew the information available on the Institution’s World Wide Web site.
☐ Explore additional methods of making collections available beyond the Mall, such as television, video, and digital imaging.

AREAS OF MEASUREMENT
☐ Expand, if necessary, and keep materials current on the Smithsonian website.
☐ Record the number of visits to the Smithsonian website and seek demographic information on visitors.
☐ Surveys/feedback on the usefulness/impact of the website.
☐ Seek to increase the number of museum objects recorded in digital form.
☐ Seek to increase the number of new television or video presentations and the number of viewers/buyers.

OBJECTIVE 3
Build collaborative partnerships with other museums, research centers, and educational institutions throughout the nation.

STRATEGIES
☐ Increase public access to the collections through affiliations with other museums or organizations.
☐ Continue the exchange of professional personnel and access for students through partnerships with other research institutions.

AREAS OF MEASUREMENT
☐ Continued implementation of Institutional policy on affiliations: the number and scale of affiliation agreements involving long term loans of collections.
☐ The number of research partnerships in research institutes and museums, and the number of students provided access through research partnerships.
OBJECTIVE

Apply the Smithsonian’s unique resources to enhance pre-school through Grade 12 education and adult education.

STRATEGIES

- Using models such as the Smithsonian Early Enrichment Center, the National Science Resources Center, and Smithsonian/school partnerships, extend the involvement of the Institution in the nationwide effort to improve education.
- Use the collections and other resources of the Institution to contribute to teacher training, and increased parental and community involvement in pre-school through Grade 12 education.

AREAS OF MEASUREMENT

- The quality and number of partnerships with school districts, locally and across the country.
- The quality and number of students trained using Smithsonian resources, including through electronic communication technologies.
- Number of teachers trained using Smithsonian resources, including through electronic communication technologies.
- Surveys or feedback on improvements in teaching and learning resulting from Smithsonian-based training.
<table>
<thead>
<tr>
<th>Objective 5</th>
<th>Emphasize education both on the Mall and across the country through a variety of means.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td>Expand Smithsonian educational programs to reach diverse populations, including unserved or under-served communities. Expand informal education through museum collections and objects-based learning in exhibitions. Expand efforts to provide more information on linkages between research and education/outreach activities.</td>
</tr>
<tr>
<td>Areas of Measurement</td>
<td>The quality and reach of educational programs aimed at new or under-served audiences. The quality and reach of collections and exhibition-based education programs developed. The quality and reach of education/outreach activities based on Smithsonian research. Periodic studies of the impact of collections and exhibition-based education programs.</td>
</tr>
<tr>
<td>Objective 6</td>
<td>Continue to use the Smithsonian’s unique resources to provide training to museum professionals and aspirants.</td>
</tr>
<tr>
<td>Strategies</td>
<td>Continue to provide Smithsonian-based training and professional support to museum professionals. Continue to provide training and other educational and outreach services to interns, students, postgraduates and others interested in museum careers, with particular attention to under-served communities.</td>
</tr>
<tr>
<td>Areas of Measurement</td>
<td>Number of museum professionals trained at the Smithsonian. Number of seminars and other special training opportunities provided. Number of interns and students employed or placed in programs at the Smithsonian. Proportion of interns, students, and museum professionals trained representing under-served communities.</td>
</tr>
</tbody>
</table>
GOAL III
Support Increased Knowledge and Diffusion Through Improvements in Finance, Management, and Physical Infrastructure of the Institution

OBJECTIVE 1
Continue to streamline and improve work processes through reengineering, automation, and review/delegation of authorities to units where appropriate.

STRATEGIES
- Review policies and procedures to ensure they are simple, ensure clear accountability, and distinguish appropriately between responsibilities of central administration and the units.
- Include decentralization of activities in planning, where appropriate.
- Provide units with appropriate tools and authorities to accomplish their goals efficiently and effectively.

AREAS OF MEASUREMENT
- Number of organizational changes reflecting efficiencies through decentralization or other means
- Number of policy directives relating to central versus decentralized responsibility reviewed and/or revised
- Improvements in work processes, including automating systems
- Financial savings (or cost avoidance) resulting from improvements in work processes

OBJECTIVE 2
Seek to enhance personnel and procurement policies and practices.

STRATEGIES
- Explore mechanisms for developing a unified Smithsonian personnel system.
- Review proposals for new systems to insure they are flexible, accountable, rational, and equitable, as well as reflective of the Institution’s unique needs.

AREAS OF MEASUREMENT
- Proposals developed for new or revised personnel system
- Proposals reviewed, revised and implemented for increased flexibility in personnel and procurement systems
**OBJECTIVE**
Seek ways to enhance program activities by increasing revenues through fundraising or commercial activities.

**STRATEGIES**
- Assist units in increasing their development activities, to provide for facilities needs, protection of collections, exhibitions, education, and electronic outreach activities.
- Seek approval for and initiate a major capital campaign for the Institution.
- Continue and expand business activities in order to increase income available for programs and facilities.
- Develop criteria for assessing the viability of business ventures before they are undertaken.

**AREAS OF MEASUREMENT**
- Increases in fundraising levels in museums, research institutes and other units
- Development and initiation of major capital campaign
- Level of net income generated from business activities
OBJECTIVE

Seek to enhance improvements in the physical infrastructure of the Institution.

STRATEGIES

- Continue emphasis on repair and restoration of facilities, which are national monuments.
- Seek improvements in infrastructure, including new buildings required to protect existing collections, through public/private partnerships.

AREAS OF MEASUREMENT

- Progress made in construction of facilities for protection of existing collections (National Museum of the American Indian; National Air and Space Museum Dulles Center)
- Management of funding for renovation, repair and maintenance projects
- Decline in backlog of repair and rehabilitation projects
The Smithsonian has prepared its first annual performance plan and submitted it as part of its fiscal year 1999 request. The performance plan includes seven goals, which are tied directly to the programs of the Institution: research and collections management; education, public programs and exhibitions; administration; and facilities and security. Each of the performance goals is also directly related to the strategic goals and objectives of the Institution.

For the most part, the Performance Plan goals are more narrowly focused than the Strategic Plan goals, and reflect the specific activities the Institution and its units will engage in during fiscal year 1999 to make progress towards achieving the Institution’s strategic goals. The measurements and milestones included in the Performance Plan will enable the Institution to gauge its progress during fiscal year 1999 in reaching the strategic goals, and will also provide important information as to whether the strategic goals need to be adjusted in future years.
SPECIAL FOREIGN CURRENCY PROGRAM

Program of Grants for Research - Through its Special Foreign Currency Program, the Smithsonian makes grants to United States universities, museums, and other institutions of higher learning (including the Institution itself) primarily for research and advanced professional training in fields of traditional Smithsonian competence.

Excess currency appropriations directly funded the program through FY 1986. Outlays from budget authority provided through FY 1986, including the Forward-funded Reserve for the American Institute of Indian Studies, will continue through the 1990s. In addition, since FY 1986 the Smithsonian has received allocations of U.S.-owned Indian rupees from funds appropriated to the Department of State in FY 1985 for the establishment of the U.S.-India Fund for Education, Cultural, and Scientific Cooperation.

Since its initiation in 1965, the Smithsonian Foreign Currency Program has been a major source of support for research carried out by United States institutions in those countries for which excess foreign currencies are available. The full responsibility for the design, execution, and publication of research results rests with the scholar working within a program of a United States institution. Smithsonian foreign currency grants strengthen the fundamental research and training activities of collaborating institutions abroad, because most projects directly involve host country institutions and scholars. Enduring professional ties, which result from joint efforts and scholarly exchange, contribute to the strongest form of United States cultural relations with other nations. These ties also contribute to the global integration of research data in the sciences. As a result of this interaction, the gap between scholars from industrial and developing nations has narrowed. Moreover, research sponsored by the program aims, in part, to improve understanding of the environment, as well as management and conservation of scarce natural and cultural resources threatened by the rapid growth of world population and technological development.

In FY 1998, ongoing research supported by these grants included projects in archeology, anthropology, art history, biology, and astrophysics.
Forward-Funded Reserve for the American Institute of Indian Studies - Since 1967, the Smithsonian has provided annual funding through the Special Foreign Currency Program to the American Institute of Indian Studies (AIIS) for its fellowships, research, symposia, and publications programs, as well as for its administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for more than 30 years because of their contributions to scholarship and science without regard to national boundaries and because of their special service to American scholars.

With Special Foreign Currency Program funding received from FY 1980 through FY 1985, the Smithsonian established a forward-funded reserve of $7,170,000 equivalent in rupees. This reserve enabled the AIIS to sustain its programs after the removal of India from the excess currency list in 1985. Since FY 1986 AIIS, with oversight from the Smithsonian, has drawn upon funds in this reserve for its fellowship program and administrative costs in India. The Institution continues to examine annual proposals through its peer review system before releasing funds to AIIS.

The reserve should provide core support for AIIS programs well into the new millenium. In 1990 Congress authorized the deposit of the reserve in interest-bearing (rupee) accounts in order to help continue the viability of the fund. In FY 1993, the first deposits totaling an equivalent of $4 million were made to the interest-bearing accounts. Most of the funds remaining in the reserve were deposited into interest-bearing accounts in FY 1995. The first draw-down of those funds occurred in 1998 when the last rupee grant was made.

U.S.-India Fund for Educational, Cultural, and Scientific Cooperation - In FY 1985, Congress appropriated $100 million equivalent in U.S.-owned Indian rupees to the Department of State to establish the U.S.-India Fund for Educational, Cultural, and Scientific Cooperation. Since FY 1986, the Smithsonian has received allocations from this fund to continue programs in India similar to those administered under the Special Foreign Currency Program, which would otherwise have ended when India lost excess currency status in 1985. The Institution has received a total of $17.6 million through FY 1996. The FY 1997 final allocation of the principal totaled $1.1 million equivalent. Based on current requirements, the principal of the U.S.-India fund was totally obligated by January 1998, signaling the last of the U.S.-owned rupee grants.
NONAPPROPRIATED RESOURCES

In addition to support provided by Federal appropriations, the Institution receives nonappropriated funds to expand and enrich its programs. To provide an overview of all sources of funding the Institution offers the information that follows.

The Institution’s non-appropriated funds, known as Trust funds, include general Trust funds with limited or no restrictions on their use; designated funds restricted by the donor or sponsor; and government grants, and contracts. Projections are subject to the uncertainty of the size of donations, grants, and contracts; to fluctuations in visitor attendance; and to the volatility of the economy, which directly affects the return on the endowment as well as restaurant, mail order, and museum shop revenues, memberships, and other auxiliary activities. The Institution’s gross operating revenue, less the expenses of the auxiliary activities, represents the net operating revenue available for programmatic and related purposes. The following table provides a summary of the sources of nonappropriated operating funds.

<table>
<thead>
<tr>
<th>(Dollars in Millions)</th>
<th>FY 1998 Estimate</th>
<th>FY 1999 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Trust</td>
<td>41.6</td>
<td>45.7</td>
</tr>
<tr>
<td>Donor/Sponsor Designated</td>
<td>45.6</td>
<td>71.8</td>
</tr>
<tr>
<td>Government Grants &amp; Contract</td>
<td>48.5</td>
<td>54.4</td>
</tr>
<tr>
<td>Total Available for Operations</td>
<td>135.7</td>
<td>171.9</td>
</tr>
</tbody>
</table>

SOURCE AND APPLICATION OF NONAPPROPRIATED TRUST FUNDS – Information on the application of General Trust funds, designated funds, and government grants and contracts for FY 1998, FY 1999, and FY 2000 is provided with each line-item in this budget. The following describes the sources of each category of Trust funds as well as a general description of their application.

General Trust Funds – The sources of General Trust funds are investment income; earnings from unrestricted endowments; net proceeds from the museum shops, mail order, and food service concessions; sales of Smithsonian books, records, and other products based on designs and objects in the collections; theater/planetarium operation at the National Air and Space Museum; rental of exhibitions of the Smithsonian Institution Traveling Exhibition Service; membership programs (including Smithsonian
and Air and Space magazines); the sale of posters, exhibition brochures, catalogs, and other publications; admission fees; and overhead recovery on government grants and contracts received. Projected sources of FY 1999 General Trust funds total $45.7 million.

Overhead recovery is the principal source of Trust support for central management and administrative service units of the Institution, including legal counsel, accounting, personnel, contracting and procurement, and budget. General Trust funds also support activities of units such as Cooper-Hewitt, National Design Museum; Center for Folklife Programs and Cultural Studies; Office of Membership and Development; Smithsonian Tropical Research Institute; Visitor Information and Associates’ Reception Center; and other Institutional and unit-based programs. The Board of Regents approves allotments to these activities.

General Trust funds also support fellowship and award programs and exhibitions. FY 1999 funding of $1.9 million will be provided for various fellowship programs. Awards under the Institution’s Collections Acquisition, Educational Outreach, and Scholarly Studies programs are projected in the FY 1999 budget to total $2.2 million. These awards will provide

- $631,000 to purchase exceptional objects important to the collections
- $226,000 to conduct a wide range of educational outreach programs with a special focus on diverse audiences
- $1.3 million for innovative scholarly research projects initiated by the Institution’s research staff, occasionally in collaboration with scholars from other institutions.

The Institution supports exhibition programs with Federal funds and with donations from individuals, foundations, and corporations, as well as its Special Exhibition Fund (SEF). This General Trust fund, with $1.3 million in FY 1999, provides an important source of funds for temporary and permanent exhibitions proposed by Smithsonian units that, regardless of scale, are of outstanding educational value to the public. The SEF allows units to explore new or expand current interpretive or exhibition techniques; supports exhibits that are worthy but, by their nature, unlikely to attract major private contributions; and allows for development of exhibits targeted to reach previously underserved audiences.
**Donor/Sponsor Designated Funds** – Designated Trust funds include gifts, grants, and earnings or endowments from individuals, foundations, organizations, and corporations that specify the purpose of the funds. Designated funds in FY 1999 are projected to total $71.8 million. Generally, these funds support a particular exhibition or research project. The Freer endowment, the Institution’s largest designated endowment, accounts for nearly one quarter of Smithsonian endowment principal.

**Government Grants and Contracts** – Various Government agencies and departments provide grants and contracts for projects that only the Smithsonian can conduct because of its expertise in a particular area of science, history, art, or education and because of its ability to respond quickly to certain needs. For FY 1999, government grants and contracts for operations are projected to be $54.4 million. Of this amount, $45.4 million is provided for astrophysical research and development carried out by the Smithsonian Astrophysical Observatory.