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SMITHSONIAN INSTITUTION

Budget Justifications for Fiscal Year 1985



Submitted to the Committees on Appropriations
Congress of the United States

January 1984

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- 5100 Assistant Secretary for History and Art - 3 ✓
- 5200 National Portrait Gallery - 2
- 5300 National Museum of American Art - 2 ✓
- 5400 Freer Gallery of Art - 2
- 5500 National Museum of American History - 4 ✓
- 5600 Hirshhorn Museum and Sculpture Garden ✓ 2
- 5700 National Museum of African Art - 3 ✓
- 5800 Cooper-Hewitt Museum ✓
- 5900 Joseph Henry Papers ✓
- 5B00 Archives of American Art - N.Y. ✓
- 5C00 Archives of American Art ✓
- 5CA0 AA&PG Building Manager ✓

Anacostia - 2

Public Service

- 6100 Assistant Secretary for Public Service - 2 ✓
- 5D00 Folklife Programs ✓
- 5E00 Symposia and Seminars
- 6800 Office of Telecommunications ✓
- 6C00 Smithsonian Institution Press ✓
- 6E00 Elementary and Secondary Education
- 6F00 Visitor Information and Reception Center

Museum Programs

- 7000 Assistant Secretary for Museum Programs - 2
- 1700 Smithsonian Institution Archives
- 6D00 Smithsonian Institution Libraries
- 7200 Office of Exhibits Central
- 7300 Office of the Registrar
- 7400 Office of the Building Manager, South Group
- 7500 Conservation Analytical Laboratory
- 7700 Smithsonian Traveling Exhibition Program
- 7800 Office of Horticulture
- 7900 Office of International Activities

National Museum Det

MSC ✓



ADMINISTRATION

1400 Office of Equal Opportunity
2400 Management Analysis Office
2600 Travel Services Offices
2700 Office of Supply Services
2800 Office of Printing & Photographic Services
2G00 Office of Information Resource Management
1G00 Office of Special Events
1500 Special Assistant to the Secretary
1C10 Accounting Office
2200 Office of Audits

FACILITIES SERVICES

2C00 Office of Protection Services
2D00 Office of Design & Construction - 3
2F00 Office of Plant Services





SMITHSONIAN INSTITUTION
Washington, D.C. 20560

Office of Programming and Budget

February 6, 1984

TO: Messrs. Ripley, Hughes, Hobbins, Jameson,
Taylor, Coudon, Fern, Reinhardt, Richards,
Rinzler, Peyton, Symington, Powers,
Challinor, and Ms. Hird

FROM: John Clarke, ~~Director~~, OPB

Attached is your copy of the FY 1985 budget justification to Congress. We will be in touch in short order to commence hearing preparation. Thank you.

Attachment





SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR SCIENCE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	7	372	11	545	11	567	12	621	12	646	12	646	12	648
-AUXILIARY ACTIVITY	0	62	0	60	0	70	0	78	0	83	0	83	0	83
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	31	0	19	0	1	0	1	0	1	0	1	0	1
RESTRICTED	1	101	0	135	0	116	0	320	0	310	0	315	0	305
FEDERAL GRANTS & CONTRACTS	2	187	2	287	2	219	2	225	2	230	2	240	2	245
-SUBTOTAL	10	753	13	968	13	982	14	1245	14	1270	14	1285	14	1280
MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	503	18148	499	18885	499	20270	505	22110	505	22763	505	22633	505	22873
-PROGRAM & ADMINISTRATIVE	0	306	0	13	0	10	0	10	0	10	0	10	0	10
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	8	0	1	0	1	0	0	0	0	0	0	0	0
-ALL OTHER	0	605	0	195	0	227	0	215	0	200	0	185	0	190
RESTRICTED	5	1362	6	2157	5	1792	5	2143	5	2165	5	1845	5	1665
FEDERAL GRANTS & CONTRACTS	24	978	18	1031	20	887	17	870	17	815	17	855	18	785
-SUBTOTAL	553	21407	523	22202	524	23187	527	25348	527	25953	527	25328	528	25523
ASTROPHYSICAL OBSERVATORY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	78	6649	92	7652	92	8708	98	8251	105	8541	112	8911	120	9281
-PROGRAM & ADMINISTRATIVE	59	2260	46	2123	46	2271	46	2386	46	2511	46	2611	48	2761
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	2	139	2	133	2	143	2	170	2	180	2	190	2	200
-BUREAU ACTIVITY	0	470	0	209	0	315	0	0	0	0	0	0	0	0
-ALL OTHER	1	155	1	179	1	150	1	80	1	80	1	85	2	200
RESTRICTED	100	10296	99	11351	100	11071	86	12454	88	16073	87	15678	70	14835
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	240	20577	240	21727	241	22658	233	23341	242	27385	248	27475	240	27277

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TROPICAL RESEARCH INSTITUTE														
FEDERAL SALARY & EXPENSES	86	3155	86	3367	86	3574	97	3978	102	4161	107	4353	112	4553
UNRESTRICTED GENERAL	2	71	2	82	2	87	2	92	2	98	2	104	2	111
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	-74	0	89	0	105	0	115	0	130	0	140	0	155
-BUREAU ACTIVITY	0	165	0	23	0	23	0	0	0	0	0	0	0	0
-ALL OTHER	8	181	8	260	8	228	0	140	0	140	0	100	0	100
RESTRICTED	0	19	0	5	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	96	3517	96	3826	96	4017	99	4325	104	4529	109	4897	114	4919
SMITHSONIAN ENVIRONMENTAL RESEARCH CTR														
FEDERAL SALARY & EXPENSES	71	3170	67	3170	67	3439	72	3722	75	3733	77	3842	80	3984
UNRESTRICTED GENERAL	1	73	1	68	1	70	1	72	1	74	1	76	1	78
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	22	0	18	0	18	0	18	0	19	0	20	0	22
-BUREAU ACTIVITY	0	111	0	96	0	102	0	107	0	106	0	110	0	113
-ALL OTHER	0	39	0	18	0	9	0	0	0	0	0	0	0	0
RESTRICTED	4	301	3	406	2	285	4	255	0	100	0	100	0	100
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	76	3796	71	3716	70	3923	77	4174	76	4032	78	4148	81	4277
NATIONAL AIR & SPACE MUSEUM														
FEDERAL SALARY & EXPENSES	222	7184	218	7713	218	8049	228	8594	229	8894	230	9194	231	9494
UNRESTRICTED GENERAL	0	5	0	8	0	8	0	8	0	8	0	8	0	8
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	16	1311	16	1144	16	1216	16	1195	16	1232	16	1267	16	1307
-BUREAU ACTIVITY	12	1097	12	1045	12	1087	12	1120	12	1153	12	1188	12	1223
-ALL OTHER	1	122	1	107	1	104	1	106	1	110	1	115	1	120
RESTRICTED	1	113	1	151	1	139	1	145	1	145	1	150	1	155
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	252	9832	240	10168	248	10603	258	11168	259	11542	260	11922	261	12307



SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL ZOOLOGICAL PARK														
FEDERAL SALARY & EXPENSES	327	10042	325	10641	325	11074	330	11698	339	12285	347	12674	355	13416
UNRESTRICTED GENERAL	0	7	0	10	0	10	0	10	0	10	0	10	0	10
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	112	0	114	0	114	0	110	0	1115	0	1815	0	870
-ALL OTHER	0	82	0	95	0	93	0	95	0	95	0	100	0	100
RESTRICTED	3	176	3	87	3	90	3	85	3	85	3	90	3	90
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	330	10419	328	10947	328	11381	333	11998	342	13590	350	14489	358	14486
SCIENCE-SUMMARY														
FEDERAL SALARY & EXPENSES	1294	48720	1290	51973	1298	55681	1342	58974	1367	81023	1390	82253	1415	64227
UNRESTRICTED GENERAL	62	2792	49	2364	49	2535	49	2658	49	2794	49	2902	49	3061
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	18	1406	18	1385	18	1483	18	1498	18	1561	18	1617	10	1684
UNRESTRICTED SPECIAL PURPOSE	12	2591	12	1781	12	1869	12	1553	12	2575	12	3098	12	2397
-BUREAU ACTIVITY	16	2042	16	2951	15	2492	7	2884	7	2900	7	2360	8	2490
-ALL OTHER	135	12750	126	13240	128	12691	113	14034	111	17448	110	17113	94	16210
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	1537	70301	1519	73694	1520	76751	1541	81599	1564	88301	1586	89344	1598	90069
* Less SAO overhead recovery - Program and Administrative		2264		2100		2260		2375		2500		2600		2750

(\$000s)

SMITHSONIAN INSTITUTION
UNRESTRICTED GENERAL TRUST FUNDS
FINANCIAL SUMMARY
FY 1983 - 1989

	FISCAL YEAR						
	Actual 1983	Budget 1984	E S T I M A T E S				
	1985	1986	1987	1988	1989		
NET INCOME:							
Investment	2,489	2,400	2,450	2,500	2,550	2,600	2,650
Gifts & Miscellaneous	70	100	100	100	100	100	100
	<u>2,559</u>	<u>2,500</u>	<u>2,550</u>	<u>2,600</u>	<u>2,650</u>	<u>2,700</u>	<u>2,750</u>
<u>Activities</u>							
Magazine	9,597	8,200	8,200	8,500	8,500	8,500	9,000
National Associate	614	700	920	1,140	1,370	1,610	1,930
Resident Associate /1	(347)	(250)	(205)	(175)	(150)	(120)	(90)
	<u>9,864</u>	<u>8,650</u>	<u>8,915</u>	<u>9,465</u>	<u>9,720</u>	<u>9,990</u>	<u>10,840</u>
<u>Business Management</u>							
Business Mgmt. Office	(282)	(170)	(175)	(180)	(190)	(195)	(205)
Museum Shops	936	750	800	850	900	950	1,000
Mail Order	1,774	1,200	1,200	1,200	1,200	1,200	1,200
Concessions	922	890	950	1,000	1,060	1,115	1,300
Food Service Division/2	139	500	560	580	610	640	670
Parking	609	750	800	970	980	1,000	1,030
Belmont	(18)	--	--	--	--	--	--
	<u>4,080</u>	<u>3,920</u>	<u>4,135</u>	<u>4,420</u>	<u>4,560</u>	<u>4,710</u>	<u>4,995</u>
<u>Other</u>							
SI Press/1	232	255	260	275	360	400	450
Photo Sales	19	--	10	10	10	10	10
Traveling Exhibition	(363)	(235)	(200)	(170)	(160)	(150)	(150)
	<u>(112)</u>	<u>20</u>	<u>70</u>	<u>115</u>	<u>210</u>	<u>260</u>	<u>310</u>
TOTAL NET INCOME	16,391	15,090	15,670	16,600	17,140	17,660	18,895
<hr/>							
<u>EXPENDITURES</u>							
Administration SI	9,333 9,334	9,150	9,800	10,500	11,200	11,900	12,700
Administration SAO	2,264 2,265	2,100	2,260	2,375	2,500	2,600	2,750
Less: Recovery SI	(6,331)	(6,444)	(6,500)	(6,800)	(7,200)	(7,500)	(7,900)
Recovery SAO	(2,264) (2,151)	(2,100)	(2,260)	(2,375)	(2,500)	(2,600)	(2,750)
	<u>3,002</u>	<u>2,800</u>	<u>3,300</u>	<u>3,700</u>	<u>4,000</u>	<u>4,400</u>	<u>4,800</u>
Program Allotments	3,130	2,784	3,200	3,400	3,700	3,900	4,100
General Fund Transfers	4,718	3,835	4,245	4,620	4,720	5,530	5,755
Revenue Sharing	486	450	475	505	530	560	585
	<u>11,336</u>	<u>9,869</u>	<u>11,220</u>	<u>12,225</u>	<u>12,950</u>	<u>14,390</u>	<u>15,240</u>
TOTAL EXPENDITURES	11,336	9,869	11,220	12,225	12,950	14,390	15,240
<hr/>							
NET GAIN	5,055	5,221	4,450	4,375	4,190	3,270	3,655
Plant Transfers	2,005	2,700	500	500	500	500	500
Endowment Transfers	3,022	2,521	3,021	3,021	3,021	3,021	3,021
ADDITION TO FUND BALANCE	28	-0-	929	854	669	(251)	134

/1 Reflects the transfer of the Division of Performing Arts concert, jazz and Discovery Theater to the Resident Associate Program; and the recording program to the SI Press in FY 1983.

/2 Does not reflect the conversion of Food Services to concessionaire operations in FY 1984.

SMITHSONIAN INSTITUTION

FISCAL YEAR 1985

JUSTIFICATION OF ESTIMATES OF APPROPRIATIONS

SMITHSONIAN INSTITUTION

FISCAL YEAR 1985 ESTIMATES OF APPROPRIATIONS

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SMITHSONIAN INSTITUTION
FY 1985 Appropriation Request
 (000's)

Summary

<u>APPROPRIATION ACCOUNT</u>	<u>FY 1983 APPROPRIATION</u>	<u>FY 1984 APPROPRIATION</u>	<u>FY 1985 REQUEST</u>
Salaries and Expenses	\$ 147,256	\$ 155,263 <u>1/</u>	\$ 170,682 <u>2/</u>
Foreign Currency	2,000	7,040	9,000
Construction			
National Zoological Park	1,550	3,500	3,500
Restoration and Renovation	8,450	9,000	13,750
Other (Quadrangle)	36,500	-8,000	--
TOTAL	<u>\$ 195,756</u>	<u>\$ 166,803</u>	<u>\$ 196,932</u>

1/ Does not include \$1.420 million (50 percent of FY 1984 pay supplemental need).

2/ Includes full-year cost of FY 1984 legislated pay raise.

INTRODUCTION

The Smithsonian Institution's FY 1985 appropriation request to the Congress represents a focus on the efficient use of existing resources and a realistic recognition of the essential additional resources required to fulfill the Institution's mandate for the increase and diffusion of knowledge. These resources also are required in line with the Institution's role as a national repository for collections that reflect the heritage and traditions of this country, with the corresponding obligation to provide adequate care and facilities for the preservation of these items.

The current assessment of needs cuts across all programmatic lines and organizational units. The budget was formulated initially by program managers and administrators working within the context of broad goals for FY 1985 and the future as expressed by the Secretary. Subsequent reviews by bureau and office directors and ultimately the Secretary and his Executive Committee established the Institutional priorities and requisite budget levels which are ultimately reflected in this document. Final approval of the Institution's Federal and Nonappropriated Trust fund budgets as well as the Institution's Five-Year Prospectus FY 1985 - FY 1989 was given at the September 19, 1983 meeting of the Board of Regents prior to submission to the Office of Management and Budget. The Institution's final allowance from the Office of Management and Budget as presented in the President's Budget Request was reviewed by the Board of Regents during its January 23, 1984 meeting.

ORGANIZATION AND GOALS

Founded in 1846, the Smithsonian Institution is an independent Federal establishment devoted to public education, research and national service in the arts, sciences and history. Centered on the Mall in Washington, D.C., the Institution operates major facilities and activities throughout the country and overseas. It is one of the world's leading research centers and encompasses the world's largest museum complex, attracting millions of visitors annually to its museums, galleries and zoological park.

Many others also view Smithsonian traveling exhibitions, which appear across the United States and abroad, and the annual Folklife Festival. As custodian of the National Collections, the Smithsonian possesses more than 100 million art objects, natural history specimens and artifacts. These collections are displayed for the enjoyment and education of visitors and are available for research by the staff of the Institution and by hundreds of visiting students, scientists and historians each year. Other significant study efforts draw their data and results directly from terrestrial, marine and astrophysical observations at various Smithsonian installations.

The Smithsonian complex presently consists of 12 exhibition buildings in Washington, D.C. and New York City in the fields of science, history, technology and art; a zoological park in Washington, D.C. and an animal conservation and research center near Front Royal, Virginia; the Anacostia Neighborhood Museum, which performs research and exhibit activities in a low income area of the city in cooperation with the community; a preservation, storage and air and spacecraft display facility at Suitland, Maryland; two natural preserves in Panama and on the Chesapeake Bay; a radiation biological laboratory in Rockville, Maryland; an oceanographic research facility at Link Port, Florida; astrophysical stations in Massachusetts and Arizona; and supporting administrative, laboratory and storage areas.

The goal of the Smithsonian Institution is to promote the increase and diffusion of knowledge. To accomplish this goal, the Smithsonian conducts a broad variety of programs alone and in cooperation with other institutions, universities and government agencies in the United States and abroad. These programs include:

- Collections management: The Smithsonian Institution has the legal responsibility (20 U.S.C. 59) to serve as the official repository of the National Collections which contain more than 100 million art, technological and cultural history objects and natural history specimens and artifacts. The responsibility involves the acquisition, documentation and conservation of these materials along with detailed record keeping or cataloguing, regular inventories and storage or display in secure and atmospherically controlled environments.
- Basic research: Increase of knowledge is accomplished through basic research. As an independent Federal establishment, the Smithsonian conducts a broad range of scientific and scholarly research, often in cooperation with other institutions, universities and government agencies.
- Exhibitions, including performances and festivals or celebrations: These presentations constitute one means of diffusing knowledge on a wide scale. In Washington, D.C. and New York City, Smithsonian museums, galleries and the zoological park devote exhibit space to showing significant objects, specimens and animals from the permanent collections. In addition, temporary exhibitions with loan materials enhance these presentations, adding fresh concepts and ideas--further enriching visitor experiences. Through the Smithsonian Institution Traveling Exhibition Service, over 100 exhibitions are seen annually by millions of people in most states and the District of Columbia. Live performances, festivals, celebrations, lectures and records also are enjoyed by millions of people.
- Education: Education programs of the Institution offer enormous variety in content and form; they range from in-depth, scholarly symposia to activities for fun and enjoyment and reach all ages from young children to senior citizens. They include classes and workshops, guided tours by trained docents, and radio, television and motion picture programs, sponsored by the individual museums and by centralized offices including Fellowships and Grants, Symposia and Seminars, and Elementary and Secondary Education. A significant aspect of the education

effort involves production each year of several hundred publications including museum catalogues, books, scholarly monographs, articles, papers, the Archives of American Art Journal and Smithsonian magazine, which is now received by over 1.9 million Resident and National Associates. At any given time, there are likely to be two to three hundred visiting scholars, scientists and students working throughout the Institution in various collections, laboratories and offices. Finally, as another educational endeavor, the Institution's Office of Museum Programs offers assistance to museums across the country and abroad by conducting museum training courses, producing and distributing audio-visual programs on conservation principles and techniques and by awarding grants for professional museum training and research.

--Collections acquisition: The Smithsonian museums acquire works of art, artifacts and specimens and other objects in three ways: by collecting, by donation and by purchase. Collecting and donation are and will continue to be the major means for acquiring materials for the collections. However, donations and gifts of collections, for the most part, do not lend themselves to planned development. If the Institution's research and exhibitions programs are to thrive, the collections must grow by thoughtful design. To meet this responsibility and challenge, the Smithsonian seeks to provide special acquisitions funds for the museums. Some Federal funds are requested each year to permit regular planned purchases.

In order to carry out these functions, administration and facilities services units of the Institution provide the required support. The Smithsonian has the responsibility for the maintenance, operation and protection of a large complex of museum and gallery buildings and other facilities. The Institution also provides architectural and engineering services for major repairs, alterations and improvements to the physical plant. As described in the Construction, Renovation and Restoration section of this budget request, the Institution has significant and increasing needs for the physical plant itself.

FY 1985 BUDGET PRIORITIES

The following information summarizes in narrative fashion the programs and plans that constitute the Institution's highest priorities for FY 1985 as reflected in this request to Congress.

I. Salaries and Expenses

The Institution is requesting a \$5,140,000 increase in uncontrollable expenses for FY 1985. The increase consists of the cost of legislated pay raises and within-grade increases (offset by a projected reduction in grade levels mandated by the Office of Management and Budget); higher utilities, postage and communications costs; and funds to offset the effects of inflation in nonsalary areas of expense.

During FY 1985 the movement of collections to the Museum Support Center will be fully under way. The request for 27 positions and workyears and \$5,030,000 will insure nearly complete staffing levels and adequate equipment funds to carry out the acquisition and installation of the dry collections storage systems essential to maintaining the move schedule.

Necessary operating funds of \$1,109,000 and 21 positions and workyears are important for the activities which will occupy the Quadrangle (the National Museum of African Art, the Center for Asian Art, the Center for Islamic Arts and Culture, the International Center, Smithsonian Institution Libraries, and various activities of the Smithsonian Institution Traveling Exhibition Service, and the National and Resident Associate Programs). Construction is to be completed in January 1986, and it is essential that program planning commence in earnest during FY 1985.

The Institution is requesting the permanent reprogramming of \$525,000 to the National Museum of American History for the Museum's exhibition reinstallation program and \$360,000 to the National Museum of Natural History/Museum of Man for special collections-related exhibitions in the Evans Hall; this reprogramming will eliminate the Major Exhibition Program line item.

Also requested is \$2,500,000 (offset by a reduction of \$1,200,000 for one-time increases associated with the Truman Centennial and the John F. Kennedy Center for the Performing Arts Trustee Grants) for important efforts in the areas of collections management, security equipment and occupational health, automation, research equipment and support, and facilities management.

II. Museum Programs and Related Research (Special Foreign Currency Program)

For FY 1985, the Smithsonian requests \$9,000,000 equivalent in foreign currencies which have been determined by the Treasury Department to be in excess of the normal needs of the United States. The Smithsonian Foreign Currency Program makes grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence.

The appropriation will be used to continue a program of grants to United States institutions for research in those countries where excess local currencies are available (\$4,000,000); to bring to the level of \$7,250,000 equivalent in Indian rupees the forward-funded reserve in support of future programs of the American Institute of Indian Studies (\$4,000,000); and for the third increment of the United States contribution to the international effort to restore and preserve the ancient city of Moenjodaro in Pakistan (\$1,000,000).

III. Construction, Restoration and Renovation

Prudent facilities management continues to be one of the Institution's highest priorities. Consistent with its responsibility and commitment to maintaining museum and other buildings and providing for future facility needs, the Smithsonian is embarking upon a carefully planned, integrated improvements program involving restoration, renovation and repair of existing facilities and the planning, design and construction of additional facilities essential to future programmatic needs. Although no construction funds are sought in the FY 1985 request, future facilities requirements are discussed in the introduction to the Facilities Planning, Renovation, Restoration and Construction section of this budget request.

A. Restoration and Renovation of Buildings

The Restoration and Renovation of Buildings (R&R) account is used to finance repairs, alterations and improvements to Smithsonian facilities which are comprised of well over 4 million square feet of building space located in 14 museum and gallery buildings (including the Quadrangle, now under construction) in Washington, D.C. and New York City, housing research and collections management activities and a wide range of exhibitions in the fields of science, history, technology and art. In addition, the Institution operates and maintains preservation, storage, aircraft and spacecraft display facilities at the Museum Support Center at Suitland, Maryland; centers for biological research, and conservation and education in Panama and on the Chesapeake Bay near Annapolis, Maryland; a center for astrophysics in Cambridge, Massachusetts; and the Whipple Observatory on Mt. Hopkins in Arizona. These facilities range in age from new to well over 100 years old.

The Smithsonian's request for \$13,750,000 in FY 1985, coupled with ongoing planning of major restoration and renovation initiatives in subsequent years, illustrates the

Institution's commitment toward strengthening preventive maintenance and improvement programs to better the condition of existing facilities and to a thorough and creative process of planning for and meeting future facilities requirements. Consequently, although funds are sought in this budget to continue a wide range of essential repair, alteration and improvement projects, major emphasis will be placed in this and subsequent years on improving heating, ventilating and air conditioning systems at facilities on and off the Mall; completion of design and installation of fire detection and suppression systems; continuation of work consistent with master plans developed for off-Mall facilities; and the planning, design, renovation, and construction of facilities to meet present and future collections storage, exhibition and other programmatic needs of the Institution.

B. Construction and Improvements, National Zoological Park

This request for \$3,500,000 is for use at the National Zoological Park for repairs, alterations and improvements to existing facilities including exhibits; to prepare plans and specifications for construction; and to perform renovations, restorations and new construction for implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973. The Zoo's facilities include 168 acres in the Rock Creek Valley of Washington, D.C., and a 3,150-acre Conservation and Research Center located near Front Royal, Virginia. Construction and improvements are accomplished primarily by contract except in instances when suitable contractors cannot be located or their estimates are above acceptable cost levels in relation to the proposed work. In such cases, accomplishment of the work by other means, such as the purchase of supplies, materials and equipment and/or use of current staff or temporary labor, is the most economical alternative. Furthermore, occasionally it is necessary to fund other related expenses from this account, particularly those associated with the displacement of animals as a result of the construction program or major grounds maintenance in repair of storm damage.

NONAPPROPRIATED SOURCES OF FUNDING

In addition to the support provided by Federal appropriations, the Institution also receives Nonappropriated funds used to expand and enrich its programs. The Nonappropriated Fund activities (Trust funds) are presented along with the Federal budget request to provide an overview of all uses of funds for each Smithsonian bureau.

The budget for nonappropriated Trust funds for FY 1984 and estimates for FY 1985 have been approved by the Board of Regents. These figures also have been submitted to the Office of Management and Budget for information. It must be emphasized that for both of these years, the estimates for Trust funds are subject to change due to the unpredictability of donations, grants and contracts to the Institution, fluctuations in visitor attendance and uncertain economic factors affecting restaurant and shop revenues, Associates memberships and other auxiliary activities.

The FY 1984 Trust budget would amount to approximately 47 percent of the total Institution's gross operating revenues or approximately 21 percent of net operating revenues. Federal grants and contracts received from government agencies are expected to total approximately \$13.6 million. Gross revenues of nonappropriated Trust funds are expected to continue to grow as in previous years and reach \$122.8 million in FY 1984. Net income, however, is projected to decrease slightly from \$28.2 million in FY 1983 to \$28.0 million in FY 1984 (of which nearly \$10 million would be for restricted purposes) because of continued inflationary cost increases adversely affecting auxiliary activities.

The Trust funds are composed of unrestricted funds, restricted funds and Federal grants and contracts and are applied in the following fashion:

A. Unrestricted Funds

1. General - Central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, supply and budget receive Trust allotments whose costs primarily are funded from overhead recovery on grants and contracts received by the Smithsonian and from internal administrative fees charged to other Trust-funded activities. Operating funds are provided to Trust-funded activities such as the Visitors Information and Associates' Reception Center, the Cooper-Hewitt Museum, and the Office of Folklife Programs along with a variety of program allotments for important Institutional and bureau needs as approved by the Board of Regents. These allotments primarily are funded from short-term investment income, unrestricted endowment income and net proceeds from museum shops, food service concessions, sales of Smithsonian books, records and other products based on designs and objects in the collections, and from the Resident and National Associate Programs (including Smithsonian magazine).

2. Special Purpose - Certain bureaus have income-producing activities, the largest of which is the Theater and Spacearium operations of the National Air and Space Museum. Also included in this category are miscellaneous bureau revenues from the sale of posters, exhibit brochures and publications; tuition grants from universities; the museums' share of sales in the restaurant and museum shops; membership and admission fees; exhibit rental; and investment income from current fund balances.

Beginning in FY 1979, the Board of Regents approved using the Institution's unrestricted Trust funds for certain programs previously financed with appropriated funds. These consist of the Institution's various fellowship programs (FY 1985 allotment of \$1.9 million) and the appropriate Trust fund share of rental costs of administrative units in L'Enfant Plaza, funded in part from rental payments by auxiliary activities occupying space on the Mall (FY 1985 allotment of \$735,000). The final planned amount of \$2.7 million in unrestricted Trust funds will be provided for the Quadrangle construction project in FY 1984. This is in addition to the approximately \$6.8 million in unrestricted Trust funds that already has been set aside. The total of \$9.5 million will be part of the dollar for dollar match with appropriated funds. A total of \$2.5 million has been set aside for the Museum Support Center, \$1.75 million--from the sale of the Belmont Conference Center--for construction and \$750,000 for Conservation Analytical Laboratory equipment.

The Special Purpose category also includes awards from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program, the Fluid Research Program, and the Smithsonian Society Awards Program. These Programs have taken on an increasing significance over the past several years with the most substantial continuing commitment being the \$2.2 million (increased from \$2.0 million in FY 1982) annual allocation for the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program, first approved by the Board of Regents in FY 1978. Of the \$2.2 million, an amount of \$1.1 million is available annually for purchase of objects of outstanding importance to the collections.

During FY 1983, the Collections Acquisition portion of the Program was used to purchase a wide variety of objects throughout the Smithsonian museums. The National Museum of Natural History/Museum of Man used \$79,000 to purchase the Green River Shale fossil collection. Other acquisitions are as follows: \$50,000 for a matched set of six 18th-century Windsor chairs by the National Museum of American History; \$450,000 for Thomas Cole's painting, "The Subsiding of the Waters of Deluge," by the National Museum of American Art; \$40,000 for a set of Frank Lloyd Wright's drawings by the Cooper-Hewitt Museum; \$375,000 for a carved wooden sculpture of mother and child from the Yombe culture of Zaire; and \$500,000 for two high quality Benin bronzes, an Oba

head dating from the early period of Benin history and a plaque from the middle period, all purchased by the National Museum of African Art. Each of these important acquisitions was supplemented by varying amounts of outside contributions.

An additional amount of \$550,000 is designated by the Program for scholarly research projects that do not lend themselves to or are not appropriate for Federal funding. These include multi-disciplinary research projects that can be carried out within and between bureaus and projects that have been awarded external funds, which require matching Trust amounts.

The remaining \$550,000 of the \$2.2 million available under this Program is allocated to conduct a wide range of educational outreach programs of benefit to the public such as a collaborative educational effort between the National Museum of Natural History/Museum of Man, the National Zoological Park and the National Museum of African Art aimed at delivering programs of those museums to elderly and handicapped groups. This effort was broadened to a national scope through publications and training seminars for museum professionals from around the country who were interested in offering such programs to local audiences that were unable to visit their respective museums.

B. Restricted Funds

Restricted Trust funds include gifts, grants and endowments from individuals, foundations, organizations and corporations which specify the use of the donation or bequest. Generally, these funds provide support for a particular exhibit or research project. The Freer fund is the largest restricted endowment of the Institution; it is strictly controlled under the terms of the original gift and bequest for the sole use of the Freer Gallery of Art.

C. Federal Grants and Contracts

Federal Grants and Contracts are provided by various agencies and departments for special projects which can be conducted at the Smithsonian because of its expertise in a particular area of science, history, art and education; and because of its ability to respond quickly to certain kinds of needs.

SMITHSONIAN INSTITUTION

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National Board of the Smithsonian Associates
National Museum Act Advisory Council
National Museum of African Art Commission
National Museum of American Art Commission
National Portrait Gallery Commission
Smithsonian Council
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TREASURER*

Office of Accounting and Financial Services
Office of Grants and Risk Management
Management Office
Concessions
Mail Order Division
Smithsonian Museum Shops

GENERAL COUNSEL*

Coordinator of PUBLIC INFORMATION*

Office of Congressional Liaison
Office of Public Affairs
Office of Special Events

Director of MEMBERSHIP AND DEVELOPMENT*

Development Office
Smithsonian National Associate Program
Smithsonian Resident Associate Program

Assistant Secretary for SCIENCE*

National Air and Space Museum
National Museum of Natural History/
National Museum of Man
National Zoological Park
Office of Educational Research
Office of Fellowships
Smithsonian Astrophysical Observatory
Smithsonian Environmental Research Center
Smithsonian Tropical Research Institute

Assistant Secretary for HISTORY & ART*

Anacostia Neighborhood Museum
Archives of American Art
Center for Asian Art
Freer Gallery of Art
Cooper-Hewitt Museum
Hirshhorn Museum and Sculpture Garden
Joseph Henry Papers
National Museum of African Art
National Museum of American Art
National Portrait Gallery
National Museum of American History
National Portrait Gallery
Office of American Studies

Assistant Secretary for PUBLIC SERVICE*

The International Center
Office of Elementary and Secondary Education
Office of Folklife Programs
Office of Smithsonian Symposia and Seminars
Office of Telecommunications
Smithsonian Institution Press
Visitor Information and Associates' Reception Center

Assistant Secretary for MUSEUM PROGRAMS*

Conservation Analytical Laboratory
National Museum Act
Office of Exhibits Central
Office of Horticulture
Office of International Activities
Office of Museum Programs
Smithsonian Institution Archives
Smithsonian Institution Libraries
Smithsonian Institution Traveling Exhibition Service

Assistant Secretary for ADMINISTRATION*

Contracts Office
International Exchange Service
Management Analysis Office
Office of Equal Opportunity
Office of Information Services
Office of Design and Construction
Office of Plant Services
Office of Protection Services
Office of Information Resource Management
Office of Personnel Administration
Office of Printing and Photographic Services
Office of Programming and Budget
Office of Supply Services
Travel Services Office

*Secretary's Executive Committee

SMITHSONIAN INSTITUTION
VISITORS TO THE MUSEUMS ON THE MALL AND AT GALLERY PLACE, FY 1964 - FY 1983

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural Hist./Man	National Air & Space Museum	Freer Gallery of Art	Museum of American History	American Art & Portrait Gallery	Renwick Gallery	Hirshhorn Museum & Sculpture Garden	Total
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774				10,813,195
1965	1,065,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776				13,153,713/6
1966	870,010	1,746,715	2,988,006	1,494,922	222,089	4,829,112				12,150,854
1967	1,020,312	1,638,873	3,409,957	1,484,422	212,920	5,546,102				13,312,586
1968	847,176	1,344,622	3,257,957	1,123,698	169,533	4,750,023	30,888			11,523,897/8
1969	275,259/7	1,493,141	2,916,749	1,225,959	179,374	4,174,071	166,177			10,430,730/9
1970		2,557,155	3,269,791	1,839,373	217,305	5,483,555	216,523			13,583,702
1971	681,255	1,985,732	3,456,755	1,337,445	190,425	5,955,128	194,468			13,801,208
1972	819,617	2,306,071	3,414,640	1,104,151	230,475	6,808,526	246,657	105,186		15,035,323
1973	807,294	2,285,603	3,306,105	1,223,917	204,858	6,905,339	254,005	165,846		15,152,967
1974	739,651	2,040,731	3,067,694	1,285,598	219,346	5,850,227	329,487	175,672		13,708,406
1975	967,164	1,973,356	3,668,587	1,416,432	215,061	7,111,054	368,948	165,433	1,620,540	17,506,575
1976	1,033,803	592,400/10	4,342,601	1,451,049/11	225,257	6,318,964	465,231	222,351	1,587,628	16,239,284
T.Q.	291,808	543,007	1,535,613	3,062,254/11	59,217	1,470,708	112,682	46,661	434,415	7,556,365
1977	755,146	1,223,703	4,925,741	9,886,350	214,675	4,307,020	399,364	155,792	1,342,892	23,210,683
1978	757,485	903,081	5,366,159	10,028,888	244,493	4,050,687	480,947	201,284	1,299,134	23,332,158
1979	877,835	940,843	5,594,748	10,151,359	286,269	4,367,183	434,481	188,788	1,211,439	24,052,945
1980	1,023,394	1,227,597	5,202,864	7,257,648	311,845	4,625,477	371,539	235,525	978,820	21,234,709
1981	956,190	1,188,507	4,998,736	7,538,954	305,411	5,162,452	384,228	243,900	924,805	21,703,183
1982	1,017,782	1,098,091	4,961,180	8,453,773	285,410	4,463,041	356,098	172,909	1,038,910	21,847,194
1983	950,426	1,043,224	5,650,406	9,837,651	269,980	5,049,038	397,232	149,447	1,052,786	24,400,190

/1 National Museum of American History opened January 1964.

/2 National Museum of American Art opened May 1968 and National Portrait Gallery in October 1968.

/3 Renwick Gallery opened January 1972.

/4 Hirshhorn Museum and Sculpture Garden opened October 1974.

/5 Excluded from these totals are annual visitor counts for the National Zoological Park (over 3 million in FY 1983), the Anacostia Neighborhood Museum (17,210 in FY 1983), the Cooper-Hewitt Museum in New York City (216,720 in FY 1983) and the National Museum of African Art (75,238 in FY 1983).

/6 July-August 1964, certain Smithsonian Institution buildings were open 4:30 to 10:00 p.m. for the first time.

/7 Building closed for renovation October 1968.

/8 Reflects the significant decrease in visitors in the first six months of FY 1968 due to unsettled local conditions.

/9 FY 1969 visitor totals represent the effect of local conditions in late 1968 on visitor attendance.

/10 Building closed for installation of "1876" exhibition September 1975 through April 1976.

/11 Old Building closed November 1975. Foyer of new museum opened to visitors February 1976. New building completely opened July 1, 1976.

SALARIES AND EXPENSES

SMITHSONIAN INSTITUTION

SALARIES AND EXPENSES

(000's)

Summary of FY 1985 Increases

FY 1984 Appropriation	\$155,263
Base Legislated Pay Requirement	2,840
Restored Funding for Museum Support Center Staff	<u>500</u>
FY 1984 Base	\$158,603
FY 1985 Request	<u>\$170,682</u>
Uncontrollable Increases	\$ 5,140
Program Increases	<u>6,939*</u>
Total Requested Increase	<u>\$12,079</u>

* Detail of Program Increases:

Page No.	Unit	Amount	Explanation
29	National Museum of Natural History	\$ 360	Evans Hall Exhibits-Reprogram
30	National Museum of Natural History	260	Equipment Replacement/Upgrading
40	Astrophysical Observatory	600	Equipment Replacement/Upgrading
40	Astrophysical Observatory	150	Land Purchase
44	Tropical Research Institute	25	Computer Specialist
48	Environmental Research Center	140	Equipment Replacement/Upgrading
58	Asst. Secretary for History & Art	-200	Truman Centennial
64	National Museum of American History	525	Exhibit Reinstallation-Reprogram
66	National Museum of American History	100	Conservation of Collections
66	National Museum of American History	35	Data Base Administrator
72	National Museum of American Art	25	Data Technician
92	Cooper-Hewitt Museum	200	Position Federalization
122	Smithsonian Institution Libraries	120	Books and Journals
122	Smithsonian Institution Libraries	80	Cataloguing Services
152	Major Exhibition Program	-885	Reprogramming
156	Museum Support Center	4,530	Equipment and Operations
164	Quadrangle	1,109	Operations
--	John F. Kennedy Center Grants	-1,000	Trustee Grants
173	Administration	40	Computer/Personnel Specialist
176	Office of Design & Construction	115	A/E Services
176	Office of Design & Construction	35	Cost Analyst
181	Office of Protection Services	200	Security Equipment
181	Office of Protection Services	50	Occupational Health
185	Office of Plant Services	<u>325</u>	Supplies and Services
	Total, Program Increases	<u>\$6,939</u>	

SMITHSONIAN INSTITUTION
"Salaries and Expenses"
Summary of the 1983 and 1984 Appropriations and the 1985 Estimates

(Dollars in Thousands)
FTE = Full Time Equivalent

Page No.	Unit	1983 Actual		1984 Base		1985 Estimate		Analysis of Change			
		FTE	Amount	FTE/1	Appropriation	Supplemental Requirement/2	Total	FTE	Amount	Uncontrolled	Program
	<u>Science</u>										
24	Assistant Secretary for Science	11	372	15	537	16	553	15	567	-	14
26	Nat'l Museum of Natural History	505	18,148	504	18,697	375	19,072	504	20,270	-	578
34	Astrophysical Observatory	88	6,649	97	7,607	90	7,697	97	8,708	-	261
42	Tropical Research Institute	82	3,155	88	3,319	97	3,416	88	3,574	-	133
46	Environmental Research Center	65	3,170	68	3,142	55	3,197	68	3,439	-	102
49	National Air and Space Museum	200	7,184	209	7,628	170	7,798	209	8,049	-	251
54	National Zoological Park	309	10,042	319	10,527	228	10,755	319	11,074	-	319
	Subtotal, Science	1,260	48,720	1,300	51,457	1,031	52,488	1,300	55,681	-	1,658
	<u>History and Art</u>										
58	Ass't Secretary for History & Art	9	374	9	606	13	619	9	429	-	10
61	Nat'l Museum of American History	291	9,530	300	9,659	284	9,943	300	10,887	-	284
69	Nat'l Museum of American Art	114	4,186	118	4,390	101	4,491	118	4,648	-	132
74	Nat'l Portrait Gallery	83	3,085	82	3,185	71	3,256	82	3,367	-	111
79	Hirshhorn Museum	74	2,705	77	2,960	53	3,013	77	3,109	-	96
82	Center for Asian Art	28	913	30	1,081	17	1,098	30	1,136	-	38
87	Archives of American Art	16	679	16	705	19	724	16	741	-	17
90	Cooper-Hewitt Museum	22	805	32	843	16	859	32	1,092	-	33
95	Nat'l Museum of African Art	26	934	25	975	21	996	25	1,031	-	35
100	Anacostia Neighborhood Museum	18	700	19	820	16	836	19	863	-	27
	Subtotal, History and Art	681	23,911	708	25,224	611	25,835	708	27,303	-	783
	<u>Public Service</u>										
103	Ass't Secretary for Public Service	12	656	12	586	19	605	12	622	-	17
107	Smithsonian Institution Press	28	970	29	1,032	23	1,055	29	1,085	-	30
	Subtotal, Public Service	40	1,626	41	1,618	42	1,660	41	1,707	-	47
	Grand Total										
		1,941	62,631	2,008	66,681	1,642	68,323	2,008	72,984	-	2,341

1984 Base

Page No.	Unit	1983 Actual		1984 Base		Supplemental		1985 Estimate		Analysis of Change		
		FTE	Amount	FTE/1	Appropriation	Requirement/2	Total	FTE	Amount	FTE	Uncontrollable	Program
<u>Museum Programs</u>												
110	Ass't Secretary for Museum Programs	22	808	24	852	26	878	24	904	-	26	-
114	Office of the Registrar	2	87	2	93	3	96	2	99	-	3	-
116	Conservation Analytical Laboratory	19	892	18	951	18	969	18	998	-	29	-
120	Smithsonian Institution Libraries	91	3,692	92	3,633	68	3,701	92	4,030	-	129	200
125	Office of Exhibits Central	42	1,367	42	1,451	32	1,483	42	1,521	-	38	-
127	Traveling Exhibition Service	7	313	7	292	6	298	7	310	-	12	-
131	Smithsonian Archives	14	442	15	495	11	506	15	523	-	17	-
133	National Museum Act	3	777	3	786	2	788	3	789	-	1	-
	Subtotal, Museum Programs	200	8,378	203	8,553	166	8,719	203	9,174	-	255	200
<u>Special Programs</u>												
136	American Studies & Folklife Programs	10	603	8	650	13	663	8	689	-	26	-
140	Int'l Environmental Science Program	11	629	13	678	6	684	13	712	-	28	-
143	Academic & Educational Programs	21	634	21	704	19	723	21	745	-	22	-
149	Collections Management/Inventory	42	789	38	827	14	841	38	857	-	16	-
152	Major Exhibition Program	8	825	-	885	-	885	-	-	-	-	-885
154	Museum Support Center	38	6,758	116	7,956	573 2/	8,529	143	13,172	27	113	4,530
161	Quadrangle Operations	-	-	-	-	-	-	21	1,109	21	-	1,109
	John F. Kennedy Center Grants	-	1,000	-	1,000	-	1,000	-	-	-	-	-1,000
	Subtotal, Special Programs	130	11,238	196	12,700	625	13,325	244	17,284	48	205	3,754
168	Administration	256	10,970	257	11,614	258	11,872	257	12,064	-	152	40
<u>Facilities Services</u>												
175	Office of Design and Construction	35	1,557	36	1,798	42	1,840	36	2,036	-	46	150
178	Office of Protection Services	573	14,588	629	15,369	300	15,669	629	16,367	-	448	250
183	Office of Plant Services	394	26,206	387	26,930	265	27,195	387	29,066	-	1,546	325
	Subtotal, Facilities Services	1,002	42,351	1,052	44,097	607	44,704	1,052	47,469	-	2,040	725
	Workyear Allocation Adjustment			-31				-31				
	GRAND TOTAL	3,569	147,194	3,726	155,263	3,340	158,603	3,774	170,682	48	5,140	6,939

/1 Includes workyear allocation adjusted for FY 1985 program increases, if any.

/2 Includes FY 1984 costs of legislated pay raises and restored funding for NSC staffing (\$500,000).

SMITHSONIAN INSTITUTION
Salaries and Expenses

Report of Appropriation by Objects of Expense
(Dollars in Thousands)

	<u>1983</u> <u>Actual</u>	<u>1984</u> <u>Base /1</u>	<u>1985</u> <u>Estimate</u>	<u>Increase</u> <u>1985 Over 1984</u>
11 Personnel Compensation.....	87,609	96,590	100,097	3,507
12 Personnel Benefits.....	10,242	10,729	11,094	365
21 Travel and Transportation of Persons.....	942	1,013	1,075	62
22 Transportation of Things.....	472	737	784	47
23 Rent, Communications and Utilities.....	16,139	16,930	18,240	1,310
24 Printing and Reproduction.....	1,375	1,795	1,871	76
25 Other Services.....	14,151	12,788	13,804	1,016
26 Supplies and Materials.....	7,162	6,539	7,350	811
31 Equipment.....	6,482	8,927	14,557	5,630
Collections Acquisition.....	801	846	951	105
32 Land and Structures.....	--	--	150	150
41 Grants.....	1,807	1,696	696	-1,000
42 Insurance Claims and Indemnities.....	<u>12</u>	<u>13</u>	<u>13</u>	<u>--</u>
TOTAL.....	147,194	158,603	170,682	12,079

/1 This amount includes required supplemental funding of \$2,840 thousand for the cost of the FY 1984 legislated pay raises and \$500 thousand in restored funding for Museum Support Center staffing.

Smithsonian Institution
FY 1985 Uncontrollable Increases
Salaries and Expenses

Funds are sought to finance costs that are beyond the control of the Institution. These increases result from law; prevailing practices in wage setting; changes in utilities; postage and communication costs; and inflation in the cost of supplies, equipment and services. A total of \$5,140,000 is requested for these uncontrollable increases:

	<u>Amount</u>
1. Necessary Pay	
Annualization of Legislated Pay Raises	
--General and Executive Schedule	\$ 592,000
--Merit Pay	77,000
--Wage Board	251,000
--Old-Age Survivors Disability Insurance and Medicare Hospital Insurance Taxes	98,000
Subtotal, Annualization of Pay Raises	\$1,018,000
Within-grade Increases	\$1,630,000
Total, Necessary Pay	\$2,648,000 /1
2. Utilities, Postage and Communications	
--Electricity	\$ 367,000
--Steam	179,000
--Gas	160,000
--Fuel Oil/Water	32,000
--Postage	131,000
--Communications	310,000
Total, Utilities, Postage, Communications	\$1,179,000
3. Inflation	\$1,500,000
4. Office of Management and Budget:	
Grade Target Reduction	-187,000
Grand Total, Uncontrollable Increases	\$5,140,000

/1 See the chart at the end of this section for detail by unit.

NECESSARY PAY AND RELATED BENEFITS - An amount of \$2,648,000 is required for the projected higher costs in FY 1985 of FY 1984 staff. These are provided to employees as a result of legislated General and Executive Schedule (\$592,000), Merit Pay (\$77,000), and Wage Board (\$251,000) pay raises, and legislated adjustments effecting amounts paid by employers for employee Old-Age Survivors and Disability Insurance (OASDI) and Medicare Hospital Insurance (HI) taxes (\$98,000); and for within-grade increases (\$1,630,000). Costs are calculated by a position-by-position analysis taking into consideration workyears authorized by the Office of Management and Budget, savings from turnover, and from filling vacancies at lower grades when possible. For example, approximately one workyear of approved employment is lost for every \$28,000 that must be applied to these costs from funds currently available for salaries and benefits. Moreover, if other object class funds must be applied to these costs, employees are left without adequate supplies and equipment to sustain current level programs and functions.

Annualization of Legislated Pay Raises - Funds in the amount of \$1,018,000 are required to annualize the cost of General Schedule, Executive, Merit and Wage pay increases effective in FY 1984, as well as the cost of the employer's share of Medicare Hospital Insurance and Old-Age Survivors and Disability Insurance taxes.

-- General and Executive Schedule - In accordance with the President's Federal Pay Comparability Alternative Plan of August 31, 1983 (House Document No. 98-97), annual salaries for Smithsonian General Schedule employees were increased on January 8, 1984. An amount of \$592,000 is required in FY 1985 to provide full-year funding for General and Executive Schedule pay increases granted in FY 1984.

-- Merit Pay - An amount of \$77,000 is required in FY 1985 to cover increased costs resulting from the Cost of Living Allowance granted Merit Pay employees in January 1984. This amount, calculated following guidelines issued by the Office of Personnel Management, is required under the provisions of the Civil Service Reform Act of 1978.

-- Wage Boards - Wage raises are granted under the authority of 5 U.S.C. 5341. Prevailing practices call for Wage pay scales to be reviewed by a Wage Finding Authority in each geographic area. Public Law 98-151, Resolution for Continuing Appropriations for FY 1984, provides that Wage Board employees receive the same pay increases as General Schedule employees. An amount of \$251,000 is requested to provide full-year funding in FY 1985 for Wage Board raises granted in FY 1984.

-- Old-Age Survivors Disability Insurance (OASDI) and Medicare Hospital Insurance (HI) Taxes - The Federal Insurance Contributions Act (FICA) provides for tax contributions by employees and employers for Old-Age Survivors and Disability Insurance and Medicare Hospital Insurance for employees. Under the provisions of P.L. 98-21, the Smithsonian is required to contribute to the social security system for new Federal employees hired after January 1, 1984. The employer's share of this tax is equal to 1.35 percent of wages paid up to \$37,500 for each employee. An amount of \$98,000 is required for full-year funding in FY 1985 of OASDI and HI tax increases granted in FY 1984.

Within-grade Step Increases - Necessary pay funding of \$1,630,000 is required in FY 1985 for within-grade step increases. For General Schedule employees, these increases are required by 5 U.S.C. 5335. Wage employees are covered by law and prevailing practice, and increases include the part-year cost of new actions in the current year, as well as the cost of annualizing step increases occurring in the previous fiscal year.

The General Schedule portion of the request is \$1,317,000. There are approximately 2,500 General Schedule employees of whom approximately 1,500 are scheduled to receive within-grade increases. The Wage portion request is \$313,000. There are approximately 900 Wage employees of whom approximately 300 are scheduled to receive within-grade increases.

UTILITY, POSTAGE AND COMMUNICATIONS - Currently, a base of \$12,961,000 is available to fund the costs of electricity, steam, gas, fuel oil, water, postage and communications. An additional \$1,179,000 is sought in FY 1985 to cover the projected increased cost of these items. Utilities costs associated with the Museum Support Center are addressed in the Special Programs section of this budget. The following table depicts actual and anticipated use and costs of the components which comprise the utilities account between FY 1982 and FY 1985 and summarizes the projected base shortage in each between the FY 1984 appropriation and the estimated costs for FY 1985.

ANALYSIS OF UTILITIES COSTS
FY 1982 - FY 1985

Fiscal Year	ELECTRICITY			STEAM			GAS		
	Use Millions of KWH	Unit Cost Average per KWH	Cost \$000s	Use Millions of lbs.	Unit Cost Average Per 1,000 lbs.	Cost \$000s	Use Millions of Cu. Ft.	Unit Cost Average Per Cu.Ft.	Cost \$000s
1982 Actual	83.4	.0594	\$4,953	222.2	14.28	\$3,173	.962	.5883	\$566
1983 Actual	86.0	.0651	5,598	198.4	14.55	2,886	.908	.7445	676
1984 Estimate	86.0	.0674	5,800	200.0	14.75	2,950	.908	.7930	720
1985 Estimate	86.0	.0693	5,958	205.3	15.00	3,079	1.025	.8585	880
1985 Estimate			5,958			3,079			880
1984 Base			<u>5,591</u>			<u>2,900</u>			<u>720</u>
	Base Shortage, Electricity		<u>\$ 367</u>	Base Shortage, Steam		<u>\$ 179</u>	Base Shortage, Gas		<u>\$160</u>

	Telephone Costs \$000s	Postage Costs \$000s	Fuel Oil/Water Costs \$000s
1982 Actual	\$1,740	\$1,058	\$194
1983 Actual	2,156	1,021	173
1984 Estimate	2,450	1,075	225
1985 Estimate	2,760	1,181	282
1985 Estimate	2,760	1,181	282
1984 Base	<u>2,450</u>	<u>1,050</u>	<u>250</u>
	Base Shortage, Telephone	Base Shortage, Postage	Base Shortage, Fuel Oil/Water
	<u>\$ 310</u>	<u>\$ 131</u>	<u>\$ 32</u>

The projected base shortage for electricity is attributable to a 7.5 percent rate increase granted to the Potomac Electric Power Company in January 1983, by the District of Columbia Public Service Commission and a proposed 15 percent rate increase anticipated in January 1985. The increase in electrical consumption between FY 1982 and FY 1983 is attributable primarily to a reorganization effective in FY 1983 which consolidated utilities costs of off-Mall bureaus including the Smithsonian Tropical Research Institute in Panama, the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, and the Cooper-Hewitt Museum in New York City; and a warmer than normal summer in FY 1983 which required increased usage of air conditioning.

The projected base shortage for steam, fuel oil and gas heating primarily is attributable to rate increases for fossil fuels necessary to generate steam and the decontrol of prices for natural gas. Minor increases in consumption are projected to reflect more realistically a normal winter weather pattern. Reduction in usage in FY 1983 is attributable to one of the mildest winters on record for our area. Current long-range weather predictions indicate that the winters of 1984 and 1985 will see a return to more normal temperatures for this area.

Although the Institution has made concerted efforts to limit communications costs-- as evidenced by an equipment growth rate of only 31 percent between 1977 and 1983, despite the addition of the National Air and Space Museum and the Museum Support Center (MSC) during the period--they have risen steadily. Further efforts by the Institution to limit telephone costs include the purchase, of telephone equipment in FY 1983 that had been leased in previous years. Additional funds are sought to cover higher costs for local telephone service resulting from rate increases granted in recent years to the C&P Telephone Company by the Public Service Commission in addition to higher annual rate increases anticipated as a result of the divestiture of AT&T in January 1984. Additionally, base funds have not been able to sustain the cumulative effects of annual rate increases granted by the Federal Telecommunications Commission for operation of the Federal Telecommunications Network Service (FTS) administered by the General Services Administration.

The Institution is continuing the comprehensive program begun in 1983 aimed at limiting escalating costs for postage. This program includes development and transmittal of information to all staff on the need to reduce the volume of all classes of mail, elimination of higher cost priority domestic packages and increased oversight and control of international air parcel post mailings. These actions were partially responsible for the reduction of costs in FY 1983. However, the most significant reason for the reduction was that two, one-week sample periods to assess average volume of mailings taken in 1983 occurred during slightly below normal mailing periods. Since the cost associated with the sample periods account for approximately 55 percent of total costs, slight variations can amount to sizeable differences in costs charged by the U.S. Postal Service. Increased costs in FY 1985 are anticipated based upon estimates reflecting the more normal numbers of mailings experienced in previous years, adjusted to include a minor increase in volume associated with the expansion of various Institutional outreach programs.

ENERGY CONSERVATION EFFORTS - In order to manage use of energy in the most efficient manner possible consistent with proper environmental conditions for the collections, the Institution is continuing its comprehensive energy management program which concentrates on promoting systems efficiency and conservation. Efforts to promote conservation include operation of a complex automated power management system which has resulted in substantial energy cost avoidance. This system minimizes costly peak demand rates by cycling motors on and off on a prescheduled basis, and when necessary, selectively shutting down equipment. Monitoring systems have assisted greatly the Institution's conservation efforts by assuring that all building operating equipment function efficiently.

Progress made in promoting energy conservation in FY 1983 and FY 1984 and planned for subsequent years includes continuation of the phased program of performing comprehensive building energy audits and renovating heating, ventilating and air conditioning, plumbing and electrical systems in the Institution's facilities. (Plans and progress in developing energy efficient utilities systems are addressed in the Construction section of this budget.) Improvements in these systems will produce the most significant energy savings to the Institution while providing stable temperature and humidity conditions necessary for the preservation of the collections.

Other continuing efforts to achieve more economical and efficient energy use include reducing lighting levels in work and nonpublic areas; installing more efficient lighting fixtures with new switching patterns and controls; operation of heating and air conditioning systems at minimum levels required to prevent damage to collections; shut-down of fans and other heavy consumers of electricity during non-public hours; continuation of an awards program for employees who submit original suggestions that are implemented to conserve energy; and greater attention to energy

conservation in determining space use, in modifying existing space, and in designing new facilities.

Although weather, numbers of visitors and new facilities all affect energy consumption, a measure of the success of the Institution's energy conservation efforts can be seen in the fact that consumption of electricity, steam and gas is expected to remain relatively constant between FY 1982 and FY 1985.

FEDERAL RENTAL PROGRAM ADMINISTERED BY THE OFFICE OF PLANT SERVICES /1
FY 1983 - FY 1985

(\$000s)

	FY 1983		FY 1984		FY 1985	
	Actual Cost		Estimated Cost		Estimated Cost	
	Federal	Trust	Federal	Trust	Federal	Trust
L'Enfant Plaza	\$ 416	\$ 591	\$ 505	\$ 681	\$ 592	\$ 736
N. Capitol St.	596	60	607	69	730	78
Sorting Center	206	-	247	-	-	-
Archives of American Art						
- New York	-	-	21	-	25	-
- Boston	-	-	6	-	6	-
Total	\$1,218	\$ 651	\$1,386	\$ 750	\$1,353	\$ 814
Base	<u>1,225</u>	<u>651</u>	<u>1,353</u>	<u>750</u>	<u>1,353</u>	<u>814</u>
Surplus (Deficit)	\$ 7	\$ -	\$ (33)	\$ -	\$ -	\$ -

/1 Trust fund cost estimates are provided for the above locations.

Rental Space - This item consists of space rental costs of the administrative activities located at L'Enfant Plaza; the Smithsonian Institution Service Center at 1111 North Capitol Street; and the Archives of American Art office space located in New York City and Boston, Massachusetts, which through a reorganization was added to the central space rental account in FY 1984. The terms of current leases at L'Enfant Plaza and the Service Center require the Smithsonian to assume additional costs brought about by increases in maintenance, utility costs and taxes. In addition, rental cost for the Service Center will increase significantly in FY 1985 as a result of the new five-year rental agreement. Based on extensive reviews of available alternative space in proximity to the Mall, it has been determined that a five-year lease agreement for the Service Center space is the best present alternative.

Rental savings originally planned to be applied to funding equipment costs at the MSC (realized as a result of the move by the end of FY 1984 of the Smithsonian Oceanographic Sorting Center from the GSA controlled space at the Washington Navy Yard to the MSC) are required in FY 1985 to cover the increased rental costs anticipated at other locations. Further, it is possible that space requirements associated with exhibits preparation, collections storage and relocation of activities during building renovation work will necessitate retention of a portion of the Sorting Center space.

OFFICE OF MANAGEMENT AND BUDGET: GRADE TARGET REDUCTIONS - In December 1983, the Office of Management and Budget (OMB) notified the Smithsonian of a position management plan calling for mandatory reductions in funding and in the number of employees in grades GS-11 through 15 between fiscal years 1985 and 1989. The funding and staff reductions assessed the Smithsonian for each year are shown in the table below and represent cumulative amounts.

Although information provided by OMB indicates that staff reductions should be achieved through attrition, no formal guidelines on developing or administering the position management plan have been received.

Reductions in Employees and Funding in Grades GS-11 through 15

FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
No. of Employees	Amount	No. of Employees	Amount	No. of Employees	Amount	No. of Employees	Amount	No. of Employees	Amount
5	\$ 187	25	\$ 560	50	\$ 933	75	\$1,306	100	\$1,492

INFLATION - Resources totaling \$1,500,000 are requested to help offset the cumulative and anticipated costs to the Smithsonian as a result of estimated inflation. The amount requested represents 4.9 percent of total nonsalary expenses for FY 1984, excluding utilities, rent and Museum Support Center equipment. Inflationary increases represent significant costs that have the cumulative effect of seriously eroding research, exhibitions, collections management, collections acquisition, and education and public orientation programs, as well as facilities management and administrative services. The result of inflation, therefore, is equivalent to a significant cut each year to the base resources of all the Smithsonian's approximately 60 organizational units.

Research - Cost increases have a severe effect on the Institution's ability to carry out the mission of its programs. In the area of scientific research, scientific supplies and contracts for the repair and maintenance of research equipment are becoming increasingly more costly. In addition, cost increases for computer assisted or related items have become erratic. This price fluctuation compounds the difficulty in budgeting for support for the scientific staff. In discussions with some major suppliers, the Institution can anticipate inflationary increases of seven to eight percent for scientific equipment and six to eight percent for laboratory supplies.

The effects of inflation on costs for books, journals, papers and publishing, as well as research-related items, impact on virtually all Institutional programs. Price increases for books and journals have been so severe that the Smithsonian Institution Libraries' (SIL) budget for these items has not been able to keep pace with the rate of inflation. A special increase for this purpose is requested for FY 1985 and is discussed in SIL's justification of program increase.

The cost of publishing, which is essential to scientific research as well as to exhibitions and educational programs, continues to increase. It is estimated that FY 1984 publishing costs will increase seven percent above costs in FY 1983. Other contributing factors related to increased costs for publishing are price changes for paper and paper products. The printing industry expects to impose a 20 percent increase in prices for these items in FY 1985 over FY 1984. The following chart

illustrates further some examples of price increases for items that are purchased regularly:

Research and Scientific Supplies and Contracts

<u>Item</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>Percentage Increase</u>
Electron microscope maintenance/year	\$6,024.00	\$6,504.00	8 percent
Deionized water service	2,880.00	3,120.00	8 percent
Dry ice, 100 lbs.	8.70	10.00	15 percent
Volumetric flasks (250 ml., case)	71.04	80.16	13 percent
Beakers (1,000 ml., case)	67.63	74.16	10 percent
Film, 35 mm., ASA 400/roll	5.20	5.73	10 percent
Laboratory isotemp oven	425.00	507.00	19 percent

Exhibitions - The increases in costs for materials and supplies caused by inflation place a severe strain on the base resources needed to maintain an active exhibition program. In addition to increases in costs of materials to assemble stationary exhibits there are, as well, special costs involved with traveling exhibits. The transportation and shipping activities associated with the Smithsonian programs such as the Traveling Exhibition Service (SITES) and loan programs of the museums and galleries are other areas experiencing rapidly escalating costs. Because the collections possess intrinsic as well as scholarly value, special care and handling are required which increases transportation fees; SITES estimates an increase of ten percent for shipping costs in FY 1985. Costs incurred in FY 1983 approached \$37,000 whereas expenditures for transporting their shows in FY 1984 are projected to exceed \$60,000. The chart below illustrates cost increases experienced for several items used extensively in exhibits preparation:

Exhibition Materials

<u>Item</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>Percentage Increase</u>
Plywood - 4'x8'x1/2"	\$ 17.86	\$ 20.50	15 percent
Drywall - 4'x8'x1/2" (firetreated)	4.24	5.47	29 percent
Pine-bd. ft. (rough)	3.23	4.40	36 percent
Conduit - 3/4", 100 ft.	57.76	147.20	155 percent
Registers - 12"x6"	3.43	7.70	124 percent
Plexiglas - 4'x8'x1/4" (UF3)	92.95	102.25	10 percent
- 4'x8'x1"	247.92	272.72	10 percent

Collections Management - Comprehensive collections management programs, essential to the preservation of the invaluable objects of the Institution, are not immune from inflationary effects. In fact, some price increases in this area are expected to be quite dramatic, e.g., EFFA dusters, decompressed gas to keep dust from specimens, will increase 15 percent in FY 1984 over costs in FY 1983.

The live collection at the Zoo requires yet other special kinds of care. Specialized diets and medical care are essential requirements. Animal food continues to be the single largest nonsalary expense the National Zoological Park incurs. The cost of animal food was \$384,000 in FY 1983 and based on early estimates of damage caused by the freeze in the South, expenditures for food are expected to exceed \$438,000

in FY 1984. The Zoo continues to supplement food and bedding purchases by growing hay and alfalfa at the Front Royal Conservation and Research Center. Price increases for medical supplies and medicine are projected to increase an average between ten and 15 percent for FY 1984 over FY 1983 costs. The following are examples of price increases for collections management items:

Collections Management Equipment and Supplies

<u>Item</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>Percentage Increase</u>
Mylar document protectors	\$.18	\$.21	17 percent
Liquipaks (10 gal.), 100	1,066.90	1,148.30	8 percent
Film (EPT - 135-36), roll	4.89	5.41	11 percent
8-pocketed mylar protectors (10"x15")	1.00	1.50	50 percent
Scalpel, surgical blade size #10/150 per box	33.00	46.86	42 percent
Lightcast tape 2" Flexible cast material for animals	49.05	53.96	10 percent
Mat board (40"x60"/8-ply)	3.00	5.95	98 percent

Facilities Management and Administration - Dramatic inflationary increases are experienced in the costs of security items vital to the protection of the Smithsonian. The maintenance cost of the communications system which includes a radio system transmitter and satellite receiver is projected to increase 27 percent in FY 1984. It is estimated that this service will cost the Institution approximately \$16,000 in FY 1984. The costs associated with maintaining, testing and inspecting the security systems have increased also. It is estimated that \$366,000 will be expended in FY 1984 for security system maintenance and repair, an increase of approximately nine percent over the cost of similar services provided in FY 1983.

Computer maintenance services for the Office of Information Resource Management, which is involved with collections management inventory efforts, are projected to increase nine percent in FY 1985. The cost of computer programming training courses increased approximately 20 percent in FY 1984 over FY 1983 costs. The following prices indicate price increases for several protection items and buildings maintenance supplies:

Protection and Buildings Maintenance

<u>Item</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>Percentage Increase</u>
Fire extinguisher maintenance	\$ 3,000.00	\$ 3,300.00	10 percent
Uniform cleaning	71,000.00	78,100.00	10 percent
K-9 Veterinary fees (contract)	7,150.00	7,865.00	10 percent
Pest control (contract)	1,037.00	1,710.00	65 percent
Work gloves, leather	3.20	4.80	50 percent
Floor wax (gallon)	11.00	11.75	7 percent
Trash can liners	9.95	10.80	9 percent

The request of 4.9 percent increase to nonsalary funds is a modest one. Yet, the additional resources of \$1,500,000 proposed are vital to the integrity of virtually all programs of the Institution and will assist in restoring lost purchasing power due to the effects of inflation.

NECESSARY PAY
FY 1985

(Dollars in thousands)

Unit	Within Grade Increases	Annualization of Raises				1/ Total
		GS	Merit	Wage	OASDI & HI Taxes	
Assistant Secretary for Science.....	5	4	1	--	--	10
National Museum of Natural History/ Museum of Man.....	246	107	4	11	12	380
Smithsonian Astrophysical Observatory....	47	26	2	8	3	86
Smithsonian Tropical Research Institute..	52	30	1	6	1	90
Smithsonian Environmental Research Center	33	14	1	5	1	54
National Air and Space Museum.....	103	27	8	14	6	158
National Zoological Park.....	128	26	5	63	4	226
Assistant Secretary for History and Art..	5	3	--	--	--	8
National Museum of American History.....	128	52	15	10	10	215
National Museum of American Art.....	47	20	4	3	5	79
National Portrait Gallery.....	45	14	3	3	3	68
Hirshhorn Museum and Sculpture Garden....	35	11	1	5	2	54
Freer Gallery of Art.....	20	4	--	3	--	27
Archives of American Art.....	5	4	1	--	1	11
Cooper-Hewitt Museum.....	12	2	--	11	1	26
National Museum of African Art.....	17	5	1	1	1	25
Anacostia Neighborhood Museum.....	9	4	1	1	--	15
Assistant Secretary for Public Service...	5	3	1	--	1	10
Smithsonian Institution Press.....	16	7	1	--	--	24
Assistant Secretary for Museum Programs..	14	5	1	--	1	21
Office of the Registrar.....	1	1	--	--	--	2
Conservation Analytical Laboratory.....	10	3	1	--	2	16
Smithsonian Institution Libraries.....	55	15	3	--	4	77
Office of Exhibits Central.....	18	6	1	2	2	29
Smithsonian Traveling Exhibition Service.	6	2	--	--	--	8
Smithsonian Archives.....	9	3	1	--	--	13
National Museum Act.....	1	--	--	--	--	1
American Studies and Folklife Programs...	9	1	1	--	1	12
International Environmental Science Prog.	3	2	--	--	--	5
Academic and Educational Programs.....	11	4	1	--	--	16
Collections Management/Inventory Program.	3	2	--	--	4	9
Major Exhibition Program.....	5	1	--	--	1	7
Museum Support Center.....	32	9	--	11	9	61
Administration.....	126	61	11	2	7	207
Office of Design and Construction.....	15	10	2	--	1	28
Office of Protection Services.....	203	94	3	4	6	310
Office of Plant Services.....	151	10	2	88	9	260
Total	1,630	592	77	251	98	2,648

/1 Old-Age Survivors and Disability Insurance and Medicare Hospital Insurance Taxes

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	11	372	-	62	-	31	1	101	2	187
FY 1984 Base /1	15	553	-	60	-	19	-	135	2	209
FY 1985 Estimate	15	567	-	79	-	1	-	116	2	219

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>15</u>	<u>0</u>	<u>0</u>	<u>15</u>
11 Personnel Compensation...	400	9	-	409
12 Personnel Benefits.....	42	1	-	43
21 Travel.....	23	2	-	25
23 Rent, Comm. & Utilities..	10	-	-	10
24 Printing & Reproduction..	2	-	-	2
25 Other Services.....	56	2	-	58
26 Supplies & Materials.....	13	-	-	13
31 Equipment.....	<u>7</u>	<u>-</u>	<u>-</u>	<u>7</u>
Total	<u>553</u>	<u>14</u>	<u>0</u>	<u>567</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of the Assistant Secretary for Science provides guidance and overall direction for the Institution's scientific research efforts, as well as for the science-related education and exhibition activities. No program increase is requested for FY 1985. Necessary pay of \$10,000 is required for existing staff and an amount of \$4,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. Immediate Office, Assistant Secretary for Science: With base resources of 10 workyears and \$378,000, the Assistant Secretary for Science serves as the principal advisor to the Secretary for the coordination of Smithsonian science activities. The science activities reporting to the Assistant Secretary for Science are the National Museum of Natural History/Museum of Man, the Astrophysical Observatory, the Tropical

Research Institute, the Environmental Research Center, the National Air and Space Museum, the National Zoological Park, and the Office of Educational Research. Two other activities reporting to the Assistant Secretary for Science are the Office of Fellowships and Grants and the International Environmental Science Program which are included under Special Programs. Additionally, this Office serves as the primary contact with national and international science organizations and serves as a representative on many national and international boards and commissions.

II. Office of Educational Research - This Office with base resources of 5 workyears and \$175,000 consists of staff members made available as a result of the merger of the Radiation Biology Laboratory and Chesapeake Bay Center for Environmental Studies to form the Smithsonian Environmental Research Center. Basic research is conducted on questions relating to non-school learning and the enhancement of scientific and cultural literacy.

In addition to undertaking research, the Office also develops prototype materials that can be used to teach cultural or scientific principles in museums, zoological parks or natural settings. The Office works closely with the various educational service units of the Institution in providing empirical data to guide them in developing educational programs and materials.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided by annual allotment and are used primarily to support three significant international foundations which operate field research stations used by Smithsonian staff members, as well as by the world scientific community. The Seychelles Island Foundation operates the former Royal Society station on the island of Aldabra, located in the Indian Ocean, where biological research is conducted (estimated expenditures of \$15,000 in FY 1984 and in FY 1985). Support is continuing in FY 1984 and FY 1985 for the Charles Darwin Foundation which operates a biological research station in the Galapagos Islands (estimated expenditures of \$30,000 in FY 1984 and in FY 1985). The Mahendra Nature Conservation Trust operates a field station in the Terai region of Nepal where significant ecosystem research is underway and provides over ten years of unparalleled data on a unique environment on the Indian subcontinent (estimated expenditures of \$5,000 in FY 1984 and \$10,000 in FY 1985). Smithsonian support facilitates the continued use of these areas for the research community at large. A separate fund also supports the exchange of scholars between the People's Republic of China and the Smithsonian, ranging in interest across the spectrum of natural and physical sciences (estimated expenditures of \$18,000 in FY 1984 and \$14,000 in FY 1985).

Restricted Funds - These consist of restricted endowments, gifts and grants from individuals, foundations and corporations which specify the use of the donation or bequest. Contributions from various sources provide for continuing support of conservation and science in the Galapagos Islands (estimated expenditures of \$30,000 in FY 1984 and in FY 1985). Competitive awards are made to Smithsonian units from the Seidell Endowment Fund, administered by this Office, which provides for dissemination of scientific information (estimated expenditures of \$75,000 in FY 1984 and in FY 1985). The FY 1983 awards from the Seidell Endowment are reflected in the expenditures of the organization receiving the funds.

Federal Grants and Contracts - Contract funds have been provided by the Office of Naval Research for the continuation of studies in the area of manpower research and development (estimated expenditures of \$209,000 in FY 1984 and \$219,000 in FY 1985).

NATIONAL MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	505	18,148	-	306	-	613	5	1,362	24	978
FY 1984 Base /1	504	19,072	-	13	-	196	6	2,157	18	1,031
FY 1985 Estimate	504	20,270	-	10	-	228	5	1,792	20	887

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Change/ Increase	FY 1985 Estimate
FTE Allocation.....	<u>504</u>	<u>0</u>	<u>0</u>	<u>504</u>
11 Personnel Compensation...	14,197	344	-	14,541
12 Personnel Benefits.....	1,491	36	-	1,527
21 Travel.....	124	-	-	124
22 Trans. of Things.....	52	-	7	59
23 Rent, Comm. & Utilities..	140	8	-	148
24 Printing & Reproduction..	528	-	-	528
25 Other Services.....	1,397	108	353	1,858
26 Supplies & Materials.....	709	50	-	759
31 Equipment.....	420	32	260	712
Collections Acquisition..	14	-	-	14
Total	<u>19,072</u>	<u>578</u>	<u>620</u>	<u>20,270</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Museum of Natural History/Museum of Man (NMNH/MOM) concentrates on research in the natural and physical sciences and on the origins and development of man. The Museum employs over 100 scientists engaged in the study of man, animals and plants, and the Earth. The collections of the Museum, comprising approximately 81 million specimens, are used by staff and visiting scientists, and are housed and cared for in a manner to ensure maximum use by future scholars. The Museum's exhibits are viewed by nearly six million visitors each year, and the Museum's education program serves these visitors as well as many special groups, such as schools, the aged and the mentally and physically handicapped. For FY 1985, a program change and increase totaling \$620,000 is requested to continue with the exhibition program in the Thomas Evans Special

Exhibits Gallery (\$360,000); and to establish a long-term program of upgrading and/or replacing critical scientific equipment (\$260,000). The amount of \$360,000 for the Thomas Evans Special Exhibits Program represents the permanent reallocation of funds previously requested in the Major Exhibition Program line item. Necessary pay of \$380,000 is requested for existing staff and an amount of \$198,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The National Museum of Natural History/Museum of Man has three important roles in furtherance of its public and specialized obligations. The Museum educates and inspires an audience numbering nearly six million visitors a year through its exhibitions and education programs. The collections represent the Museum's greatest assets, for it is this legacy of information about man and the natural world which will be passed along to future scholars and visitors. These collections, now known to number approximately 81 million specimens, constitute the largest scientific reference collection in the nation. The Museum has the legal responsibility (20 U.S.C. 59) to serve as the repository of all collections of objects of natural history, archeology and ethnology made by the agencies of the Government when no longer needed for investigations in progress. Additionally, the NMNH/MOM is the repository for valuable specialized collections obtained from the scientific community, academic institutions and private donors. The research staff promotes the dissemination of information about the natural world through active study of the collections and field work, the results of which are reported in publications, lectures, teaching, and participation in the creation of the Museum's exhibits. The following is a discussion of major activities of the Museum:

Research - The research conducted at the Museum results in important new understandings about man, plants, animals, fossil organisms, rocks, minerals, sediments and materials from outer space. The Museum's scientists publish over 100 books, scientific papers and articles each year. This research is problem-oriented and geared toward the study of collections and specimens in the laboratory and in the field. Subjects of long-term interest include biological and taxonomic studies of the earth's major life forms and geology, in all types of habitats; investigations of changing environments and cultures; ecological interactions; and studies of the history of life and cultures. Special consideration always has been given to biological conservation and study of endangered cultures.

The Museum's published record of research in the natural and physical sciences, its large and well-documented collections, and its knowledgeable staff make a significant contribution to the nation's science research effort. The Museum provides considerable assistance and service in areas of its speciality to other government agencies, such as the Department of Agriculture, Fish and Wildlife Service, United States Geological Survey, and National Oceanic and Atmospheric Administration. In addition, the Museum's resources are used by large numbers of scientists, writers, and publishers from other institutions throughout this country and abroad.

Major research accomplishments for FY 1983 included the following:

- Publication of a volume commemorating the 100th Anniversary of the Eruption of the Krakatau Volcano, in the Indonesian Archipelago. This compendium is a new scholarly treatment of the eruption portraying not only a natural event of cataclysmic proportions, but also a scientific analysis of the event which offers new insights into volcano dynamics.

- Preliminary work has shown that "turfs" of algae can be grown readily on simple artificial structures in the Caribbean Sea. Further work is being done on the prospect of harvesting these turfs, or animals which can be grown selectively on them, to produce energy or food stuffs.

- Research was begun on a study of insect life in the Amazonian tropical forest canopy, 100-120 feet above the forest floor. The study is focused on the diverse forests of the Tambopata Nature Reserve in southeast Peru. The studies have shown that the forest canopy is populated by an incredible richness of insect species--far more than previously estimated. More than half of the species collected are new to science, and many may have potential usefulness in medicine, forestry and agriculture.

- Study on lichens indicates that certain species are particularly sensitive to pollutants in the atmosphere. Through study of these pollution-sensitive lichens in the Flattop Wilderness Area of western Colorado, the Museum has been able to help the National Park Service and the United States Forest Service establish air quality standards necessary for licensing of energy development projects in the area.

- By the end of 1983, the published volumes of the 20-volume series of the Handbook of North American Indians include Northeast, California, Subarctic, and two volumes on the Southwest Indians. The books have been well received with over 50,000 copies sold and well over \$1.0 million returned to the United States Treasury in the form of receipts. The volumes on Indians of the Great Basin and the Arctic are scheduled for completion by the end of 1984.

In FY 1984 and FY 1985, the Museum will continue and also initiate several collaborative research programs in environmentally threatened areas of the world such as the tropical rain forest of central and eastern Brazil, the Eastern Ghats area of India, Aldabra Atoll in the Indian Ocean, the Red Sea and other oceanographic areas. Support is being provided from the International Environmental Science Program for several of these projects.

Exhibitions - Exhibitions presented in the Museum are the most visible of the Museum's activities. The exhibitions are meant to engage and educate the millions of visitors who come to the Museum each year. Since the exhibits program was rejuvenated in the early 1970s, eight major new exhibit halls have been renovated. The most recent effort has been devoted to renovation of the halls of paleontology, with the Dinosaur Hall as the centerpiece. All of the halls of paleontology will be completed during FY 1985, when attention will shift to the Life in the Sea Hall. The exhibits rejuvenation is a cooperative effort between the Department of Exhibits and the scientific staff of the Museum. The staff provides the latest information on the subjects to be treated in the exhibits, and the Department of Exhibits provides the expertise to develop the halls. This collaboration has worked to assure scientific accuracy in the exhibits, as well as attractive and durable displays. A major asset to the Museum's and the Institution's exhibits program is the Thomas Evans Special Exhibits Gallery, which was opened in 1981. This gallery has been the focus of seven major exhibitions since its opening. These include: "5,000 Years of Korean Art," "Inua - The Spirit World of the Bering Sea Eskimo," "Japanese Ceramics," "The Silk Route and Diamond Path," "Heritage of Islam," "Precious Legacy" and "Ban Chiang." The "Precious Legacy" is a traveling exhibit which featured Judaic treasures from Prague, many of which were collected by the Nazis as they conducted their campaign of genocide against the Jews. This show was well received as evidenced by the over 108,000 people who visited the exhibit during its eight-week showing. The Museum produced from its own collection a significant show entitled "Inua," which featured objects created by the Bering Sea Eskimos and collected almost 100 years ago. The importance of this show was heightened by the use of the Museum's own objects which have been unavailable for public view (due to space constraints in the exhibit areas) almost since the time they were collected. Another major show, which will draw on the Museum's collections in the same way, will cover the Wilkes scientific expedition of 1838-1842, and will be mounted in the Evans Gallery in 1985.

Collections Management - Care of the collections is the major responsibility of the Museum. The collections currently represent 137 years of field work ranging from the Arctic Ocean to the Antarctic, and from virtually all other areas of the globe. The objects, plus supporting photographs and records, form a permanent and tangible record of the earth's history. In June of 1983, the Museum's inventory of its holdings was completed. The Museum's holdings were found to comprise 2,000 collections, with a total of approximately 81 million specimens. Enhancement of these inventory records and reconciliation work are planned over the next several years to further refine knowledge of and accountability for the collections. The specimens and data which comprise the Museum's collections constitute the baseline for ecological, evolutionary, and developmental studies from which new knowledge is generated and against which it can be measured. The collections and records are the benchmarks for natural history research. It is worth noting that old collections in the natural sciences do not become antiquated. On the contrary, the value of older collections increases because they are frequently the only records that document former environmental conditions that have since been altered, often radically, under the encroachments of man. These materials are studied regularly by hundreds of scholars outside the Institution and many publications result from their work. Not only must the Museum care for existing collections, but it actively must seek new collections which document the many thousands of as yet undescribed species of plants and animals. Nearly half of the Museum's budget and staff is devoted to the care of these collections.

The National Human Studies Film Archives was established to collect and preserve historical and contemporary ethnographic film and video records. The work of the Archives involves locating, collecting, preserving, and making available for study these visual records of western and nonwestern life. The Archives was transferred from the Center for the Study of Man to the Department of Anthropology in FY 1983, and shortly thereafter an inventory was completed and a cataloguing system begun.

EXPLANATION OF PROGRAM CHANGE - For FY 1985 a program change totaling \$360,000 is requested to continue the exhibition program in the Thomas Evans Special Exhibits Gallery. This sum represents the permanent reprogramming of funds previously requested in the Major Exhibition Program line item.

Thomas Evans Special Exhibits Program (\$360,000) - With the establishment of the Thomas Evans Special Exhibits Gallery in 1981, the Museum achieved, for the first time, a suitable space for presenting significant temporary exhibits. The Evans Gallery is a 13,000 sq. ft. flexible exhibition space designed to present major temporary traveling exhibitions to visitors to the National Museum of Natural History/Museum of Man. These shows fall into four categories: 1) Shows produced by the National Museum of Natural History/Museum of Man from its vast collections of artifacts and specimens not on permanent exhibition. Following presentation in the Evans Gallery, the Smithsonian Institution Traveling Exhibition Service (SITES) circulates the exhibition to other museums nationally and/or internationally; 2) Exhibitions organized by SITES which have a theme appropriate to NMNH/MOM. These shows may feature some Smithsonian objects, but usually are comprised of objects from other collections. The premiere showing of the exhibition is at NMNH/MOM; 3) SITES-organized exhibitions which have circulated to other institutions before coming to the Evans Gallery; and 4) Exhibitions produced and toured by other national or international museums and organizations.

The Evans Gallery space offers an ideal setting for displaying important collections in the museum's care which would not otherwise be available to the public. The enormous size and diversity of objects limits their viewing to the public. The expenses connected with conserving and preparing to exhibit a large number of objects which have been in storage for some years is sizeable, and substantial expenses are

incurred to show these materials. However, when such efforts are undertaken the results can be dramatically successful. The exhibit, "Inua - Spirit World of the Bering Sea Eskimo" which ran from June 1982 to January 1983 brought together in the Evans Gallery a very significant collection of Alaskan Eskimo materials which had been collected at a time when contact with Europeans was just beginning. Another show with the same potential for public and scholarly interest is now being assembled and concerns the Wilkes Expedition, the first government sponsored scientific collecting expedition. The materials obtained from the expedition formed the first collections of the United States National Museum. The Wilkes exhibit is contemplated to run from October 31, 1985 to October 5, 1986.

The reprogramming of \$360,000 for the Evans Gallery, which represents funds previously requested for the Major Exhibition Program, will enable the Institution to present shows like Inua and Wilkes. In the past, private donations have been solicited to cover such expenses, with limited success. The Museum at present has insufficient base resources to fund the design and production of collections-related shows. The addition of these funds will enable the Museum to cover the substantial expense connected with conservation and the preparation of materials from the Museum's collections for eventual exhibition in the Thomas Evans Special Exhibits Gallery.

EXPLANATION OF PROGRAM INCREASE:

Research Equipment Program (\$260,000) - For FY 1985, an increase of \$260,000 is requested to establish a long-term program of upgrading and/or replacing critical scientific equipment. The National Museum of Natural History/Museum of Man possesses 2,532 pieces of nonexpendable scientific equipment, with an original cost of \$2,255,000 and current depreciated value of \$880,100, and an estimated replacement value of \$4 million. The Museum is in the process of developing a scheduled program to span five years to assure that scientific research is not weakened by the use of obsolete equipment, and that the rapid technological innovations available in new scientific equipment are utilized to expand the research capabilities of the scientific staff. The Museum currently is able to provide funds for major research equipment purchases only on an intermittent basis.

This program would emphasize the introduction of state-of-the-art equipment in current and developing technologies as these more sophisticated research tools become available in different research fields. As a result, during FY 1985, the first year of this replacement program, it is anticipated that the following pieces of equipment would be purchased, not only for the principal users, but also to be made available to other departments within the Museum: (1) a transmission electron microscope, which would upgrade currently available equipment (principally for the Department of Botany and other departments in the Life Sciences); (2) an atomic absorption unit (for the Department of Mineral Sciences); and (3) an image analyzer (for the Department of Paleobiology). The latter two pieces of equipment will enable current research to be done in a more efficient manner.

(1) Transmission Electron Microscope (\$148,000) - The great advantage of electron microscopes is the tremendous increase in magnification over optical microscopes--the resolving power of the transmission electron microscope (TEM) is about 1,000 times better than that of the finest optical or light microscope. The development of the transmission electron microscope opened the field of cell ultrastructure, and ultimately produced visualization of macromolecular complexes, and even large protein molecules. The TEM produces an image of a specimen by passing a beam of electrons through the specimen in a high vacuum causing deflection of the electrons at various angles. This deflection, called scattering, when processed through the appropriate electronic equipment produces an image that can be viewed on a screen or recorded by

black and white photography. The TEM provides very detailed information about the internal structures of organic materials that can be used in the classification of specimens and the analysis of the function of the organic material being examined.

(2) Atomic Absorption Unit (\$32,000) - An atomic absorption-flame emission, double-beam instrument is used in the analyses of major, minor and trace elements. The instrument, equipped with a furnace and various burners to handle both solid and liquid samples, also includes a cathode-ray tube to monitor the operation of the furnace and a printer to record the scientific data output. The analyses of these elements are used in identification and analysis of minerals to determine history of formation and subsequent modification of these minerals.

(3) Image Analyzer (\$80,000) - An image analyzer enables the automatic identification and analysis of objects of similar shape by the interpretation of video and/or photographic images into mathematical relationships and equations. This object analysis is used in measuring the physical characteristics of an object, such as shape, volume, and growth patterns, and producing comparative studies of different individual specimens of the same specimen group, as well as for identification purposes.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from allotments, the Museum's share of net proceeds in the museum shop, cafeterias and other receipts such as the sale of exhibit brochures, the "By-Word" communications system and tuition reimbursement grants from local universities. Allotments include those from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program which supported the acquisition of the Lamb collection of African textiles, and several research and education projects. Expenditures under this program and the Fluid Research Program, totaling \$399,000 in FY 1983, have not been recorded for FY 1984 and FY 1985 which explains the variance in totals shown for those years. In addition, Special Purpose funds are used to help finance exhibit hall brochures, field research, audio-visual equipment for exhibit halls, training for anthropology students, research in paleontology, and support of the Anthropological Archives. In FY 1983, funds in this category provided for a research catalogue on the exhibition "Inua: Spirit World of the Bering Sea Eskimo." In FY 1984, funds were used for the publication of "Krakatau 1883." Program allotments supported the "Silk Route and Diamond Path" and the "Heritage of Islam" exhibitions in FY 1983 (\$130,000); continued work on the Handbook of North American Birds, to be completed in FY 1984 (\$4,000); and special events related to the opening of new exhibits. Also, an allotment was awarded to the Museum to cover costs of research work under NOAA's Marine Sanctuary Program (expenditures of \$130,000 in FY 1983).

Restricted Funds - These are in the form of restricted endowments which specify the use of the donation or bequest and of gifts and grants provided by individuals, foundations or corporations for specific purposes. Generally, the funds provide support for a particular exhibit or research project. Among the restricted funds are the Roebling Fund for acquisition of mineral specimens and gems (estimated expenditures of \$15,000 in FY 1984 and \$16,000 in FY 1985); the Drake Fund for purchase of entomological specimens (estimated expenditures of \$10,000 in FY 1984 and in FY 1985); the Sprague Fund for experiments and field research into the physics and chemistry of the Earth (estimated expenditures of \$52,000 in FY 1984 and \$49,000 in FY 1985); the Becker Fund for the study of the physical and chemical state of molten rock in volcanic chambers prior to major explosive eruptions and for geophysical studies of meteorite impact structures (estimated expenditures of \$17,000 in FY 1984 and in FY 1985); three Seidell Fund awards for publication of reprints on the 1883 Krakatau eruption, the Catalog of the Diptera of North America, and Whalebone Whales

of the Western North Atlantic (expenditures of \$25,000 in FY 1983); the Exxon Fund for ecological study of Mangrove swamps (estimated expenditures of \$21,000 in FY 1984 and in FY 1985); and funds to support ethnological research among the Canela Indians of Brazil (estimated expenditures of \$34,000 in FY 1984 and \$36,000 in FY 1985). A gift provided funds for the Evans Gallery exhibition, "Japanese Ceramics Today" (expenditures of \$137,000 in FY 1983). The Museum is seeking funds for research in the field to study viability of aquaculture farming in the Caribbean (expenditures of \$30,000 in FY 1983 and \$10,000 estimated in FY 1984). Other funding is available through FY 1985 for research in ornithology (estimated expenditures of \$18,000 in FY 1984 and in FY 1985); funds for field research and training of Latin American archeologists (estimated expenditures of \$10,000 in FY 1984 and in FY 1985); and improvement of the curation, conservation and storage of the Philippine ethnological collection (estimated expenditures of \$125,000 in FY 1984 and FY 1985).

In FY 1982, the Museum undertook the management of the Smithsonian Marine Station in Link Port, Florida (formerly called the Fort Pierce Bureau), as an integral part of its marine research program. The Hunterdon Endowment is used to support oceanographic research at this facility, located on the central east coast of Florida, a transitional zone offering an unrivaled opportunity for study of a unique complex of both temperate and tropical plants and animals. Research conducted emphasizes studies of the life histories, systematics and ecology of a wide spectrum of marine life. Contributing to the research efforts are a resident scientist, Smithsonian visiting scientists, post-doctoral fellows and numerous national and international visiting investigators (expenditures of \$380,000 in FY 1983, and estimated expenditures of \$397,000 in FY 1984 and \$408,000 in FY 1985). Support is also provided by the Seward Johnson Endowment Fund for operation and maintenance of the Johnson-Sea-Link submersible program conducted at the facility by the Harbor Branch Foundation (expenditures of \$400,000 in FY 1983, and estimated expenditures of \$438,000 in FY 1984 and \$460,000 in FY 1985).

The Museum is seeking support from private sources for special exhibitions in the Evans Gallery (estimated expenditures of \$598,000 in FY 1984 and \$449,000 in FY 1985). The Museum also has several other restricted funds, each with anticipated expenditures of less than \$15,000 a year.

Federal Grants and Contracts - These funds are provided by various agencies and departments for special projects which can be conducted at NMNH/MOM because of the Museum's scientific expertise. Examples of Federal contract support are: an AID grant for the study of aquaculture farming in the Caribbean (estimated expenditures of \$350,000 in FY 1984 and \$403,000 in FY 1985); the medical Entomology Project and Systematics of Aedes Mosquitoes Project funded by the United States Army that conducts basic bio-systematic research on mosquitoes, which are of medical significance overseas (expenditures of \$130,000 in FY 1983, and estimated expenditures of \$90,000 in FY 1984); another project funded by the United States Army to create a computer data file on the medical importance, distribution, ecology and collection of mosquitoes (estimated expenditures of \$65,000 in FY 1984 and \$71,000 in FY 1985); the "Tumor Registry in Lower Animals" project funded by the National Cancer Institute which facilitates the study of neoplasms and related disorders in invertebrate and cold-blooded vertebrate animals important in human biomedical research (expenditures of \$270,000 in FY 1983, and estimated expenditures of \$281,000 in FY 1984 and \$321,000 in FY 1985); a project funded by the National Science Foundation to allow the Smithsonian Oceanographic Sorting Center to increase knowledge of polar ecosystems by studying extant collections of flora and fauna (estimated expenditures of \$104,000 in FY 1984 and \$93,000 in FY 1985); and to process and distribute polar biological specimens and data (expenditures of \$133,000 in FY 1983, and estimated expenditures of \$204,000 in FY 1984 and \$209,000 in FY 1985); and funds to curate material collected during the Bureau of Land Management's outer continental shelf biological sampling

program in the Atlantic and Gulf regions (expenditures of \$156,000 in FY 1983, and estimated expenditures of \$152,000 in FY 1984 and \$162,000 in FY 1985). The National Science Foundation provided one-year funding for taxonomic research on Neotropical butterflies (expenditures of \$123,000 in FY 1983). The Museum also is seeking funds for various research projects and construction of a Maine coast tank similar to the Coral Reef Exhibit (estimated expenditures of \$130,000 in FY 1984).

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	88	6,649	59	2,268	2	609	1	155	100	10,896
FY 1984 Base /1	97	7,697	46	2,123	2	422	1	179	99	11,351
FY 1985 Estimate	97	8,708	46	2,271	2	458	1	150	100	11,071

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>97</u>	<u>0</u>	<u>0</u>	<u>97</u>
11 Personnel Compensation...	3,811	78	-	3,889
12 Personnel Benefits.....	401	8	-	409
21 Travel.....	87	18	-	105
22 Trans. of Things.....	38	2	-	40
23 Rent, Comm. & Utilities..	415	18	-	433
24 Printing & Reproduction..	47	2	-	49
25 Other Services.....	1,763	80	-	1,843
26 Supplies & Materials.....	285	17	-	302
31 Equipment.....	850	38	600	1,488
32 Land and Structures.....	-	-	150	150
Total	<u>7,697</u>	<u>261</u>	<u>750</u>	<u>8,708</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Astrophysical Observatory (SAO), established in 1890, conducts a comprehensive program of basic astrophysical research in seven interrelated scientific fields: atomic and molecular physics, high energy astrophysics, optical and infrared astronomy, planetary sciences, radio astronomy and geoastronomy, solar and stellar physics, and theoretical astrophysics.

In support of these investigations, scientific data are obtained from laboratory experiments in Cambridge, Massachusetts; from telescopic observations conducted primarily at the Fred L. Whipple Observatory, location of the Multiple Mirror Telescope (MMT) on Mt. Hopkins near Tucson, Arizona; and from space observations utilizing

satellites, rockets and balloons. The reduction and analysis of these data are performed with SAO's interactive computer system in Cambridge. The resulting astrophysical models and scientific interpretations are published in scientific journals and reports and are distributed to the scientific community and to the public through lectures and articles.

For FY 1985, an increase of \$750,000 is requested to continue the establishment of an adequate replacement program for general laboratory, test and computer equipment (\$600,000); and to purchase land in Amado, Arizona, to serve as the permanent headquarters for the Whipple Observatory (\$150,000). Necessary pay of \$86,000 is requested for existing staff and an amount of \$175,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Smithsonian Astrophysical Observatory's international leadership in astrophysics is based in part on its diversified approach to research. SAO's staff has served not only as an intellectual nucleus but created new research tools to respond to promising avenues of investigation. Although the research programs are divided among seven research divisions, all efforts are integrated so that the results in one division often complement those in another. SAO cooperates in almost all of these programs with the Harvard College Observatory (HCO), which together form the Center for Astrophysics (CfA). A description of the programs of each division and a few recent results from each are given below.

Atomic and Molecular Physics - Most techniques for interpreting observations of astronomical objects require quantitative information about atomic and molecular processes. Accurate determination of physical conditions in these objects depends directly upon the precision and completeness of the underlying atomic and molecular data. The major objective of this division is to increase knowledge of the characteristics of atomic and molecular interactions. To accomplish this goal, the division is involved in both laboratory and theoretical studies. Federally appropriated funds support approximately 50 percent of this research program; contracts and grants and Institution Trust funds support the remainder.

Laboratory experiments which make use of a newly developed laser light source combined with apparatus which forms well defined beams of neutral molecules will be used during FY 1985 to measure the basic absorption processes of hydroxyl (the hydrogen-oxygen ion formed from water) and other molecular radicals. These measurements are important for the study of objects such as comets whose chemical components can provide important clues relative to the origin of the solar system.

The net production and destruction of ozone are important processes to be studied because of their basic scientific content and because of the critical role ozone plays in sustaining life on Earth. An experiment to measure the effects of atmospheric pressure on the characteristics of radio waves emitted by ozone is under way. These results will be used in other studies which use the emission of radio waves from ozone to measure its concentration at various altitudes.

Nitric oxide also is present in the atmosphere of Earth and is a very efficient destroyer of ozone. Nitric oxide concentration has been measured by detecting the characteristic light it emits after absorbing sunlight. The atomic nitrogen ion emits light at almost the same frequency and is detected along with the nitric oxide. The efficiency with which the atomic nitrogen ion emits light has been calculated by division scientists and measured so that the nitric oxide concentration can be extracted correctly from the aforementioned observations.

High Energy Astrophysics - Research in high energy astrophysics is concentrated on the study of astronomical objects that emit a substantial fraction of their energy

in X-rays. Since X-rays are absorbed by Earth's atmosphere, observations must be made from rockets, the Space Shuttle, or satellites. SAO scientists and engineers are developing new instrumentation to carry out such future space science missions. Scientific studies are directed at a broad range of questions including the processes involved in generating radiation observed in the X-ray band, the amount of matter in the universe, and the origin, development, and ultimate fate of the universe. More than 90 percent of the funding for this division's research comes from contracts and grants, a small amount of Institution Trust funds and the remainder from Federal appropriations.

In FY 1983, a laboratory was established for the development and evaluation of advanced detectors for use in future X-ray observatories. Several different types of X-ray detectors are under active evaluation in order to optimize their performance over a range of factors including size, spatial resolution, energy resolution, detection efficiency over a broad energy range, and susceptibility to background noise.

FY 1984 will mark major developments in three hardware programs. Under sponsorship of the National Aeronautics and Space Administration (NASA), SAO expects to begin design and construction of "flight" hardware for a prototype Large Area Modular Array of Reflectors (LAMAR) for a future Space Shuttle mission. LAMAR represents a low-cost approach to achieving a very large collecting area to determine the energy coming from X-ray sources as well as to search for possible variations in the X-ray intensity with time. Such studies can provide essential information about the mechanisms by which intense sources of X-ray radiation are generated. SAO also proposes to play a major role in the Advanced X-ray Astrophysics Facility (AXAF) which will be a national X-ray observatory having almost ten times the resolution of the Einstein satellite and a sensitivity almost 100 times greater, thereby enabling scientists to study fainter and more distant objects in greater detail than previously was possible. AXAF will be an X-ray facility of at least 15 years duration, serviceable and maintainable in orbit through the use of the Space Shuttle. Finally, SAO personnel will continue, under NASA support, the development of a High Resolution Imaging detector to be included on the Federal Republic of Germany's Roentgen Satellite (ROSAT), scheduled to be launched in 1987. The ROSAT will carry out a sensitive all-sky X-ray survey and will be used for X-ray observations of selected targets of astronomical interest.

In the coming year SAO scientists plan to utilize the great sensitivity of the Multiple Mirror Telescope (MMT) to search for very faint and distant quasars (sources of enormous energy, possibly due to the release of gravitational energy by matter falling back into black holes at the centers of galaxies). These data will be used to describe how the numbers of quasars and their radiated energy change over the lifetime of the universe and to improve previous estimates of the contribution of these quasars to the all-sky X-ray background. The MMT also will be used to search for faint optical counterparts to X-ray sources found in sensitive surveys made with the Einstein satellite. Distant galaxies, clusters of galaxies, and quasars are among the types of extragalactic objects expected to be found.

Optical and Infrared Astronomy - The division of optical and infrared astronomy has a responsibility for the Fred L. Whipple Observatory, and the Multiple Mirror Telescope. (The MMT is operated jointly with the University of Arizona.) The success of the MMT as the first large high-technology telescope is paving the way for a new generation of giant ground-based instruments.

The MMT is being used by astronomers for studies of galaxies, quasars, star clusters, X-ray sources, regions of recent star formation, and other interesting astronomical objects. Observations made with the MMT and with instruments at the Whipple Observatory are playing a major role in increasing the understanding of the large-scale distribution of matter in the universe and its evolution. Studies of the motions of galaxies, especially of galaxies in clusters, have strengthened the conclusion that the universe will

expand forever. Approximately 65 percent of funding for research in this division comes from Federal appropriations with the remainder from contracts and grants, and Institution Trust funds.

Observations of distant quasars with the MMT have been used to study their distribution in space, to probe primordial gas clouds, and to study conditions in the tremendously energetic central regions of the quasars themselves. A survey of faint quasars has shown that at very large distances, as far back in time as when galaxies had recently formed, quasars were more numerous. This may explain the puzzle of the X-ray background radiation: it simply may be the energetic radiation resulting from the violent activity in the cores of an early generation of quasars. In another project using the MMT, very distant quasars (the most luminous objects in the universe) were used as "laboratory lamps" to study the physical conditions in the intervening clouds of intergalactic gas.

Work to improve the optical finish of the MMT mirrors will continue so that greater advantage can be taken of the excellent image quality allowed by the unusually steady atmosphere at the summit of Mt. Hopkins. Development of state-of-the-art instrumentation for the MMT is an ongoing program that will continue through FY 1985. The main emphasis is on the development of better imaging detectors for spectroscopy of very faint objects. A major effort is being invested in the implementation of improved charge-coupled devices and the upgrading of the computer systems used to handle the very large arrays of data created by these new devices. The goal is to extend the reach of the MMT to fainter galaxies and quasars at larger distances than the present limits.

Planetary Sciences - Personnel in this division work to understand the planets, satellites, and small bodies of the solar system, and try to discover the events and processes that created them from gas and dust billions of years ago. Meteorites contain samples of the first solid objects that formed in the solar system, and these can be studied in the laboratory. By the same means, division scientists learn by studying the Apollo lunar samples what happens to a planet when it forms. The motions of comets, which are measured carefully and catalogued at SAO, are the last stages of complex and far-ranging journeys begun by masses of snow and dust long ago, when the gravitational fields of newly formed planets threw them out of the solar system. About 45 percent of the cost of this research is met by Federal appropriations to the Smithsonian Institution. The remaining 55 percent of support is received from research grants and contracts and fees for services to the scientific community.

One of the most important recent developments in the planetary sciences was the discovery by an SAO scientist of a water-and-ice volcano on Europa, Jupiter's fourth largest moon. This discovery was made through a careful examination of photographs taken by the Voyager spacecraft as it passed by Jupiter several years ago. Europa is the second Jupiter satellite found to be erupting a molten substance in the same way lava is erupted on Earth. The other is Io, which erupts molten sulfur. Detecting volcanism on two moons at different distances from their parent planet provides a means to test the theory that tidal motions created by Jupiter are responsible for the internal heating that gives rise to the volcanic activity.

SAO participated in an expedition to Antarctica sponsored by the National Science Foundation (NSF) in which 378 new meteorites were discovered. Their radioactivity is being measured to determine the length of time they have lain in the Antarctic ice. The several specimens so far measured at SAO show residence times varying from 7,000 to 300,000 years. These measurements will improve our knowledge of the frequency with which meteorites fall on Earth and, also, will establish the rate of flow of Antarctic ice, an important factor influencing Earth's climate.

In the coming year, in addition to continuing these research programs, SAO scientists will make maps of the icy surface of Ganymede (another of Jupiter's moons),

exploiting the photographic survey made by the Voyager spacecraft. Very late in 1984, Halley's comet will begin to be bright enough and close enough to allow measurements of its position to be made at the SAO Oak Ridge Observatory located at Harvard, Massachusetts. These positional data will be essential to properly point the instruments to be placed by the Europeans aboard their Giotto spacecraft which will pass close to Halley early in 1986.

Radio Astronomy and Geoastronomy - Division members conduct research in radio astronomy and geophysics. Programs in radio astronomy concentrate on understanding the structure, evolution, sources of energy, and ultimate fate of radio-wave-emitting astronomical objects distributed throughout the universe. To carry out these investigations, a radio procedure is employed called Very Long Baseline Interferometry, or simply VLBI. SAO scientists have pioneered many important developments in VLBI technology and have applied these techniques to advance knowledge of the properties of objects that populate the universe. About 40 percent of support for this division is provided by Federal appropriations with the remainder coming from grants and contracts.

VLBI observations of water-maser sources, which are very powerful radio wave emitters, were completed in an ambitious project to determine the size of our galaxy (the Milky Way). This determination is accomplished by tracking the gas flows, which envelop newly formed stars, made luminous by intense radio emission from trace quantities of water vapor. This experiment not only reveals the distance to the young objects, but also contributes to our understanding of the motions of materials surrounding heavily obscured, massive newborn stars, which are about 50 times more massive than the Sun and have exceedingly powerful stellar winds.

Using radio tracking of the Pioneer Venus Orbiter, SAO scientists are mapping small irregularities in the gravitational potential of Venus. These irregularities are compared to the topography to determine the subsurface structure of the planet. Since Earth resembles Venus more than any other planet, an understanding of the near-surface structure of Venus helps both to test and to develop theories that describe such important terrestrial phenomena as earthquakes, volcanoes and the formation of mineral deposits.

SAO scientists originally invented and patented a device called the Tethered Satellite System. Carried aboard the Space Shuttle, a very long wire may be deployed from a reel housed within the Space Shuttle. A reel can accommodate more than 40 miles of wire one-eighth inch in diameter. With a satellite attached to the tether, it can be reeled out approximately 40 miles above or below the shuttle allowing the satellite to be either "towed" through space, retrieved or released. The system offers numerous operational advantages. Some of the potential applications of the tether are unique. If the tether is a long wire towed through Earth's magnetic field, it becomes a useful source of electrical power. If used as a very long antenna for a transmitter, a study of how radio waves travel through the outermost layers of Earth's gaseous envelope can be performed.

Solar and Stellar Physics - The research activities of this division are directed principally towards understanding the physical processes in the Sun and stars. Explaining solar activity--the complex conversion of magnetic fields below the surface to the features we can finally see--represents a fundamental question of physics. Stars like the Sun are also of interest in order to increase understandings of stars of different ages, stars in pairs and groups, and stars with different compositions. Observations and theory play complementary roles in this effort. Over 60 percent of the support for this division is provided from contracts and grants with the remainder coming from Federally appropriated funds.

Several hundred stars now have been observed in SAO's program to measure stellar rotation, in collaboration with the Mt. Wilson Observatory, leading to the discovery of

fundamental relations between the amount of magnetic activity (for example, starspots-- areas on stars similar to sunspots) on other stars and their rotation rate. These results are important for understanding solar activity and the mechanism which creates sunspot cycles and solar flares. They also aid in understanding the evolution of the Sun.

A rocket experiment flown on July 20, 1982, made the first optical measurements of the solar winds in the outer atmosphere of the Sun where the solar wind originates. Analysis of these rocket data is under way and will yield temperatures, densities, and velocities of the solar wind in the region where the wind originates. How this material is driven away from the Sun is still a major unsolved problem of solar physics. Its resolution would assist in understanding the solar wind in relation to Earth.

A new computer program has been developed to analyze the outflow of mass from giant stars that are observed to be losing mass about ten million times faster than our Sun. In the coming years, this program will be used to analyze observations taken at the Whipple Observatory and by satellites in space.

Theoretical Astrophysics - Theoreticians in this division study and try to understand astronomical systems by means of physical analysis and mathematical modeling. A broad range of topics has been investigated, including: the interiors of neutron stars; the properties of atoms and molecules in interstellar space; the formation of spiral structure in galaxies; high temperature plasmas; and the formation of planets in the early solar system. These studies are relevant to the understanding of a variety of astronomical phenomena observed via visible light, radio waves, X-rays and other forms of radiation that reach Earth. Approximately 80 percent of the funding for this division is derived from Federal appropriations with the remainder from contracts and grant activity.

Magnetic white dwarfs currently are under active study. These are compact stars that emit polarized X-rays, which are modulated by the star's rotation. The generation of radiation in the strong magnetic fields surrounding these stars was studied by modeling the physical properties and geometry of the emitting regions and performing extensive computer calculations of the observable radiation. By comparison of these theoretical results to observations, it has been possible to deduce many intrinsic properties of these stars. This work will be extended in the coming year to include the dynamics of material falling onto white dwarf stars, which represents the source of the emitted energy. This extension should permit a fuller understanding of the nature of X-ray sources.

Also under theoretical scrutiny are globular clusters, systems of stars distributed in our galaxy that typically each contain millions of stars and that seem to contain an abnormally large number of X-ray sources. Studies at SAO have explained this association as a result of the formation of binary stars (two stars orbiting about one another), due to the gravitational interactions in the dense cores of the cluster. Many of these binaries will be formed as X-ray emitters, enough to explain the number of X-ray sources observed in the globular clusters. One surprising result of this study is that the mass contained in the cores of globular clusters is very nearly the same from one cluster to another. This similarity is not well explained by other current theories, which deal directly with the mass in the cores of clusters, and suggests that some improvements in these theories are needed. Various possibilities for such improvements will be investigated in FY 1985.

Administration - In addition to the seven scientific divisions, SAO has a central core of nonscientific support personnel, the majority of whom are funded by means of administrative charges to grants and contracts. Since SAO is located almost 500 miles north of Washington, D.C., it has been necessary to develop a broad administrative func-

tion which supplements the services available to Mall activities. This includes a personnel office, a contracting and procurement office, property management, a fiscal office, communications, publications, and public information, as well as shipping and receiving. In addition, SAO has a travel office, a computer facility and an extensive astronomical library.

With \$425,000 reprogrammed in FY 1984 to address the administrative imbalance between Federal and Trust funds, the Observatory is in the process of converting approximately fourteen employees to Civil Service status. Once accomplished, along with the redirection of certain nonsalary expenses, two-thirds of the imbalance will have been corrected. Methods are being studied for the correction of the remainder.

EXPLANATION OF PROGRAM INCREASE - For FY 1985, an increase of \$750,000 is requested to continue an adequate replacement program for general laboratory, test and computer equipment (\$600,000); and to purchase land in Amado, Arizona, to serve as the permanent headquarters for the Whipple Observatory (\$150,000).

Equipment Replacement Program (\$600,000) - The Observatory completed a detailed inventory and evaluation of its general laboratory, test and computer equipment. The survey showed that the equipment, which has a total current replacement value in excess of \$7,000,000, needed to be replaced in a phased fashion beginning in FY 1984 if SAO is to maintain its technological expertise. The survey showed a requirement of \$2.4 million for FY 1984-FY 1985 and the request of \$600,000, in addition to the \$820,000 appropriated in FY 1984, will provide resources towards the acquisition of this equipment.

Land Purchase (\$150,000) - Research activities of the Whipple Observatory are conducted on a 4,744-acre site at the 7,600-foot level of Mt. Hopkins under an agreement with the Forest Service. For the past 13 years, a four-acre site in the town of Amado, Arizona, has been leased for use as headquarters of the Observatory. The headquarters site is midway between the cities of Tucson and Nogales and offers easy access from a nearby interstate highway for visitors and for the delivery of research equipment and supplies. Access to the research facilities on the mountain is permitted by a limited-access secondary road that originates at the headquarters location.

On the property is a one-level school building and a residence which serve as the base office and staging area for research activities on the mountain. There also are a small, informal Visitors' Center which has displays on the history of astronomy and audio-visual presentations describing Smithsonian research; various automotive service, repair and storage buildings with gravel parking and driveway areas; and space for the motor pool which provides daily access to the mountain site, continual road maintenance, and winter snow removal. Current and projected needs of the Observatory necessitate a larger and more permanent headquarters facility. Leasehold improvement is not economical, but the site is significant because of its accessibility to the mountain and the interstate highway and the existence of all necessary utilities. Smithsonian ownership would permit the development over several years of permanent facilities in a planned and coordinated fashion that would be cost-effective, cause minimum disruption to current operations, and protect the integrity of the neighboring community and its environment.

The passage of Public Law 98-73 authorized the Smithsonian to purchase land in Santa Cruz County, Arizona, for use as the permanent headquarters of the Fred L. Whipple Observatory. The requested increase would allow the funding to execute this purchase in FY 1985, if the land is available for sale at the appraised price.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Unrestricted general funds come primarily from overhead charged on contracts and grants. These funds are used to support administrative positions and other administrative costs of SAO. Special Purpose funds come primarily from two sources: external users of SAO's Computer Center and the Institution's Trust funds. The former may be used for research purposes and for computer related purchases in future years. The latter are grouped into various programs. The Fellowships and Visiting Scholars Program expenditures were \$242,000 in FY 1983, with anticipated expenditures of \$260,000 in FY 1984 and \$300,000 in FY 1985. Funds for special events are used for scientific lectures and meetings hosted by the Observatory. Fluid Research funds are used for costs of small individual research grants. Finally, funds from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program are used mostly to support research projects. Expenditures through this Program and the Fluid Research Program, together totaling \$166,000 in FY 1983, have not been recorded for FY 1984 and FY 1985 which explains the variance in the totals shown for those years.

Restricted Funds - Restricted funds consist of restricted endowments, gifts and grants from individuals, foundations, organizations and corporations which specify funds for a particular project. Restricted Endowment Funds provide support for studies in various physical sciences (estimated expenditures of \$72,000 in FY 1984 and \$55,000 in FY 1985). A grant from the Chemical Manufacturers Association assists SAO in performing studies of the chemical balance of halogen in the ozone of the stratosphere (estimated expenditures of \$76,000 in FY 1984 and \$79,000 in FY 1985).

Federal Grants and Contracts - SAO receives a majority of its funding through Federal agency grants and contracts for research. These studies are integrated with both governmental and academic institutions in the United States and abroad. Almost all of this funding comes from NASA for space science projects, particularly in the high energy astrophysics and radio astronomy/geoastronomy divisions. Some funding from Federal agencies, such as the Naval Research Laboratory and the Air Force, is received to support specific projects in areas of SAO's expertise. The FY 1983 expenditures totaled \$10,896,000. Estimated expenditures in FY 1984 amount to \$11,351,000, and in FY 1985 to \$11,071,000. The slight decrease in FY 1985 is due to the fact that the Observatory was unsuccessful in securing the Goddard Laser Tracking Network Contract, the effect of which is the loss of the existing Satellite Tracking Program grant. The projections now incorporate appropriate phase-out costs for this Program.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	82	3,155	2	71	-	91	8	181	-	19
FY 1984 Base /1	88	3,416	2	82	-	112	8	260	-	5
FY 1985 Estimate	88	3,574	2	87	-	128	8	228	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>88</u>	<u>0</u>	<u>0</u>	<u>88</u>
11 Personnel Compensation...	2,126	81	23	2,230
12 Personnel Benefits.....	489	9	2	500
21 Travel.....	68	-	-	68
22 Trans. of Things.....	20	-	-	20
23 Rent, Comm. & Utilities..	25	-	-	25
24 Printing & Reproduction..	42	5	-	47
25 Other Services.....	228	16	-	244
26 Supplies & Materials.....	304	13	-	317
31 Equipment.....	<u>114</u>	<u>9</u>	<u>-</u>	<u>123</u>
Total	<u>3,416</u>	<u>133</u>	<u>25</u>	<u>3,574</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Tropical Research Institute (STRI), located in the Republic of Panama, serves as an international center for studies in tropical biology. Research activities focusing on ecology, behavior and evolution are undertaken, complemented by applied studies in such areas as agroforestry and natural resource conservation. An active program of education is undertaken by visits to Barro Colorado Island Nature Monument which is under STRI custodianship, in Gatun Lake, and preparation of audio-visual and educational materials. Training and research opportunities are afforded to students from the high school level to senior scholar status. Facilities on both the Pacific and Atlantic Oceans, as well as Barro Colorado Island, are utilized by a worldwide community of scientists and students. For FY 1985, an increase of \$25,000 is requested to hire a computer specialist. No new position is being

requested as one will be reallocated from current workyear resources. Necessary pay of \$90,000 is required for existing staff and an amount of \$43,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - Studies conducted in the tropics are aimed at learning about the evolution of life. Tropical ecosystems, particularly the tropical rainforests, are disappearing at an alarming rate, yet little is known or understood about these complex biota. It generally has been accepted that tropical forests are rich in unexploited potential for the benefit of mankind and that their destruction would result in an immeasurable and irreparable loss of genetic material. Knowledge derived from the tropics could serve as a model to predict the functioning of other natural systems throughout the world.

The growing realization of the importance of the tropics has resulted in an increasing demand for use of STRI facilities by scientists throughout the world. In 1982 and 1983, STRI had 1,360 short- and long-term visitors, more than any previous year. This is a reflection of the leading role played by STRI in tropical studies. Many visiting scientists now are engaged in broad and valuable long-term comparative studies which fully occupies space in laboratories and residences on an annual basis. At the Naos Marine Laboratory a pre-World War I U.S. Army building has been reconstructed to provide 12-15 offices and new well-equipped laboratories for scientists. In addition, to meet the needs of its own and visiting scholars, a new library devoted to tropical sciences has opened at the Institute's headquarters site close to the heart of Panama City. This unique collection, the most comprehensive in tropical biology within the Western Hemisphere outside the United States, is available to a wide community of international scholars.

The key to understanding the tropics lays in answering questions over a long-term period. Since many processes occur over a longer biological time scale than the calendar year, only such continuity can detect long-term vital processes. It already has been shown that the tropics, previously thought to be stable, over a period of years have proven to be subject to wide variability. The permanent STRI scientific staff, who live and work continuously in the tropics, provide the critical continuity for such studies. Examples of this importance can be cited from studies in the Bay of Panama and on the Barro Colorado Island Nature Monument.

The Bay of Panama is the center of an important ocean upwelling with profound biological effects. It is also the site of an important shrimp fishery. Scientists at STRI's Naos Marine Laboratory have been carrying out long-term studies of the Bay. During 1983, STRI scientists and visitors recorded the first-time appearance in Panama of several species of Peruvian seabirds. These included the Inca Tern and the Peruvian Boobies. Also recorded was an unprecedented die-off of corals in the Gulf of Chiriqui and mass mortality among Atlantic sea urchins. On land, 1983 started with one of the longest dry seasons on record in contrast to the unusually wet dry season of 1982. Terrestrial organisms on Barro Colorado Island, as elsewhere, were strongly influenced by the unusually dry conditions, including the death of many plants inside the rainforest.

The Africanized bee reached Costa Rica in 1983 and will continue to spread towards the United States. The ecological consequences of the invasion of this species are being constantly monitored at STRI, which is advising governments of the region on the control and amelioration of this insect.

STRI pursues a vigorous policy of disseminating ideas through publications and international conferences. In 1983, the volume Ecology of Tropical Forests was published. This work summarizes a ten-year study of a ten-hectare watershed on Barro Colorado Island. In August 1983, the Institute together with the University of

Panama, hosted the IXth International Congress of Arachnology. This was the first time the Congress was held outside Europe and delegates from more than 20 countries attended. In 1983-1984, STRI scientists and students participated in seven major international scientific congresses as either invited speakers or delegates as well as in numerous national congresses and symposia. They also carried out comparative studies in India, Malaysia, Sabah, Brunei, Nepal, Hawaii, Guam, Australia, Fiji, Costa Rica, Colombia, Venezuela, Cuba, Belize, and Chile. More than 150 research publications resulted from studies supported by STRI.

As a permanent entity with easy access to tropical areas, STRI plays a significant role in preparing students for a career in tropical biology. The general objective of the educational program at STRI is to foster the scientific development of students at the university level, providing them the opportunity for independent thinking (fellowships) and for acquiring training and experience while continuing their education (assistantships). During FY 1983, STRI had a number of participants in this capacity, including nationals from the United States, Panama, Great Britain, Mexico, Costa Rica, Ecuador, Colombia, Peru, Chile, and Brazil.

Scientists living and working in the Third World cannot be immune to the broader problems which surround their daily existence. The tropics are experiencing major ecological, social and economic repercussions. While STRI is devoted primarily to basic research, it recognizes its obligations to assist nations in the tropics in solving problems that are encountered by making its scientific advice available. To this end, STRI maintains formal cooperative agreements with a number of national institutions, particularly in Panama and Colombia. In addition, STRI has agreements with a number of Panamanian and international agencies to provide advice and assistance related to the management of watersheds, conservation of soils and waters, reforestation, preservation of flora and fauna and management of forest reserves and park areas. These agreements will enhance STRI contributions to applied research, particularly in protecting the watershed of the Panama Canal, and will result in the establishment of joint research projects to be carried out in the West Bank of the Panama Canal close to the boundary of STRI's Barro Colorado Island Nature Monument. STRI staff also are assisting the Tri-national Committee (under the auspices of the State Department) in assessing improvement alternatives to the present Panama Canal.

Since FY 1983, STRI's scientists have engaged in an ambitious research proposal entitled "Alternatives to Destruction" which is designed to discover ways to utilize the tropical forest for the benefit of mankind without causing serious and long-lasting effects. The research has been funded partially from private sources, as noted in the Nonappropriated Sources of Funding section. Projects include domesticating the paca, a large New World rodent esteemed as a food item; increasing the yield of iguanas available for food; and developing systems for game management, aquaculture and forest gardening.

EXPLANATION OF PROGRAM INCREASE:

Computer Specialist (\$25,000) - For FY 1985, an increase of \$25,000 is requested to hire a computer specialist. No position is being requested as one will be reallocated from current workyear resources.

A 1983 analysis of computer utilization at STRI carried out by the Office of Information Resource Management recommended that a position be established for a technically qualified person to manage computer operations, plan the development of computer services, not only at the headquarters site but also at all of STRI's Isthmian research facilities, and assist in designing and integrating programs. At present, computer use in direct research and administration is expanding. In support of research, scientists are making extensive use of computers for data analysis and

storage. Furthermore, administrative support for research such as procurement, inventory control and accounting can be facilitated greatly by expanding the use of computers. All these functions of computers cannot be fully utilized without the addition of a computer specialist.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from a variety of sources including receipts and collections from users of Barro Colorado Island Nature Monument facilities (20 U.S.C. 79b(d)) and allotments. They are used to support, in part, the salaries and related costs of the fellowship education program, the senior sabbatical program, insurance, supplies, and facilities maintenance. Funds also are used to finance visiting scientists and students, field research, seminars, lectures and to defray expenses at international scientific colloquia and ceremonial occasions. Monies also were provided from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program for training in tropical biology, fellowships, field research, and environmental and research education in the tropics. Expenditures under this Program and the Fluid Research Program, totaling \$127,000 in FY 1983, have not been recorded for FY 1984 and FY 1985 which explains the variance in the totals shown for those years.

Restricted Funds - Funds provided here are in the form of restricted endowments which specify the use of the donation or bequest and of gifts and grants from individuals, foundations, organizations or corporations for specific purposes. These are used to support: scientific research related to the biological, ecological and behavioral processes on which tropical ecosystems are organized; research related to geophysical events; publication and distribution of research results; and studies relating to endangered tropical environments. Among the restricted endowments is the Becker Endowment Fund, which has supported the studies of damage to tropical rainforests by earthquake-caused landslides in the neotropics and Papua New Guinea (expenditures of \$11,000 in FY 1983). Continuing support from the Exxon Corporation will be used to provide short-term tropical biology fellowships and assistance to students from developing Latin American countries under the supervision of STRI's scientific staff (estimated expenditures of \$39,000 in FY 1984 and \$43,000 in FY 1985); the Tupper Foundation grant for conducting ecological studies related to the endangered environment in the Perlas Archipelago (estimated expenditures of \$5,000 in FY 1984 and \$1,000 in FY 1985); the Robert Silberglied Memorial Fund to support fellowships in tropical entomology for young biologists (estimated expenditures of \$1,000 in FY 1984 and \$2,000 in FY 1985); the Rare Animal Relief Effort grant to support the formation and functioning of student conservation groups throughout Panama (estimated expenditures of \$2,000 in FY 1984); the Eisenmann Fund for the purchase of scientific books for the STRI library (estimated expenditures of \$2,000 in FY 1984 and FY 1985); and the significant grant awarded by the W. Alton Jones Foundation, Inc., for the following research projects: (1) management of the green iguana to determine whether populations can be increased for human consumption; (2) the possibility of domesticating the paca as a food source; (3) the possibility of increasing the mammal populations in the natural forests; (4) developing horticultural practices to be used inside tropical forests; and (5) the possibility of raising nitrogen fixing floating aquatic plants in ponds for the purpose of developing alternatives to the destruction of tropical forests. The projects are being carried out over a five-year period in the West Bank of the Panama Canal in the vicinity of Barro Colorado Island Nature Monument (expenditures of \$92,000 in FY 1983 and estimated expenditures of \$200,000 in FY 1984 and \$169,000 in FY 1985).

SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER

(Dollars in Thousands).

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	65	3,170	1	73	-	133	-	39	4	381
FY 1984 Base /1	68	3,197	1	68	-	114	-	18	3	406
FY 1985 Estimate	68	3,439	1	70	-	120	-	9	2	285

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>68</u>	<u>0</u>	<u>0</u>	<u>68</u>
11 Personnel Compensation...	1,976	49	-	2,025
12 Personnel Benefits.....	200	5	-	205
21 Travel.....	25	-	-	25
22 Trans. of Things.....	1	-	-	1
23 Rent, Comm. & Utilities..	190	-	-	190
24 Printing & Reproduction..	6	-	-	6
25 Other Services.....	194	15	-	209
26 Supplies & Materials.....	307	17	-	324
31 Equipment.....	<u>298</u>	<u>16</u>	<u>140</u>	<u>454</u>
Total	<u>3,197</u>	<u>102</u>	<u>140</u>	<u>3,439</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Environmental Research Center (SERC) performs basic research with the goal of measuring physical, chemical and biological interactions in environmental settings and of determining the mechanisms within cells by which these interactions regulate biological responses. Formed by the merger of the Radiation Biology Laboratory and the Chesapeake Bay Center for Environmental Studies in July 1983, the Environmental Research Center maintains two research facilities--a laboratory at Rockville, Maryland and a 2,600-acre facility in Edgewater, Maryland. As discussed in the Construction section of this justification, by 1990 the activities at the Rockville laboratory will be consolidated at the Edgewater site. Disciplines represented within the Center include physiology, ecology, microbiology, zoology, cytology, biochemistry, biophysics, physics, engineering, and electron microscopy.

At the Rockville laboratory, scientists study how the quality, duration and intensity of light influence organisms at the cellular and subcellular level by identifying pigments responsible for the absorption of light and determining the subsequent biological processes using controlled growth chambers that simulate natural conditions. At Edgewater, scientists study land and water interactions for an estuary and its adjacent watersheds. The effects of sunlight, climatic variation and land use practices on the watershed are measured throughout the system. Important environmental responses of individual species or populations at the Edgewater site are selected for detailed investigation of control mechanisms at the Rockville laboratory. In a reciprocal manner, molecular control processes demonstrated to function under controlled laboratory conditions suggest new ways of testing their importance in the field under natural conditions. For FY 1985, an increase of \$140,000 is requested to establish a basic program for the upgrading and/or replacement of scientific equipment. Necessary pay of \$54,000 is required for existing staff and an amount of \$48,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - Research of the Center emphasizes the relationship of environmental control factors to biological responses. Control factors such as climatology (e.g., light, rainfall) and management practices (e.g., agricultural chemicals, land cultivation) are measured continuously. Variation in these driving forces are related to biological responses at the landscape, population and cellular level. Observational and manipulative approaches are employed to develop and test environmental concepts. An emphasis is placed upon how biological communities are developed and maintained over time. The responses of major species to a variation in light quality is important to a long-term understanding of how natural communities have developed over time to utilize sunlight best under a given range of other climatic variation. An understanding of these relationships will enable better sound management of land and water by allowing prediction of the effects resulting from alternative actions.

Under laboratory conditions, where the environmental factors can be precisely controlled, the responding cellular systems can be examined and the underlying molecular mechanisms determined. One of the major control factors is light and the Center's emphasis upon light effects is of greater scope than that of any other single photobiology laboratory. Major contributions have been made including: (a) description for the first time of several biological responses to different colors of light, which gives information about the nature of pigments involved and (b) development of methods for measuring sunlight that have led to techniques and calibration standards used worldwide.

Recent significant studies underway or recently completed in the field include (a) a study of the impact of ditching as a means of mosquito control on the ecology of tidal marshes, (b) a study on the activities of predatory animals and their impact on invertebrate populations in estuaries and (c) progress toward the establishment of an estuarine sanctuary at the Rhode River which allows for public education about the biology of an estuary. Additional research at the Edgewater facility is described in this book under the International Environmental Science Program justification.

Although laboratory data have led to an understanding of cellular processes such as photosynthesis, pigment synthesis and the utilization of stored chemical energy by signals from the environment, it is not known how these processes interact in a dynamic, natural environment. It is envisioned that the merger of the Radiation Biology Laboratory and the Chesapeake Bay Center for Environmental Studies will allow for a coordinated program between field and laboratory emphases to understand better how to assess the productivity of diverse natural environments and to provide predictive estimates of the responses to changes in the environment, whether man-made or natural. Such programs are, by their very nature, long-term and require the concerted efforts of the number of scientific disciplines represented at the Center.

EXPLANATION OF PROGRAM INCREASE:

Equipment Replacement Program (\$140,000) - For FY 1985, an increase of \$140,000 is requested to establish a basic program for the upgrading and/or replacement of scientific equipment in order to take advantage of the advanced research capabilities which are now available in state-of-the-art equipment. The research program of the Center is dependent on the quality of the scientific equipment available to measure, analyze and test the relationship of environmental control factors to biological responses. A recent analysis of the equipment needs of the Center indicated that about 55% of the research equipment needs to be replaced within the next five years at a total cost of \$2,330,000. In FY 1985, it is proposed to purchase a freeze-fracturing system (\$100,000) and a bench top mass spectrometer (\$40,000).

The freeze-fracturing system, with a fast freezing device, multiple specimen capability, a controlled evaporation system, film thickness measuring and associated sectioning device, is required to determine the physical localization and spatial orientation of specific functional parts in the photosynthetic membranes of cells. From the data obtained this way a three-dimensional reconstruction of the membranes can be determined. This instrument also can be used to study other light-sensitive membranes and their reactive components.

The bench top mass spectrometer will be used to trace nutrient and food chain pathways in complex natural environments by measuring stable isotope ratios among naturally occurring isotopes of carbon, oxygen and nitrogen. A given organism will have ratios similar to what it has been eating. Therefore, by converted samples to simple gases such as carbon dioxide or nitrogen, the ratios of molecules can be determined with a high resolution bench top mass spectrometer which separates the molecules on the basis of their molecular weight. Data obtained from this instrument will assist in the identification of the organisms which make up the food chain of estuaries such as the Rhode River.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are provided by allotments and sales proceeds of educational brochures and materials. They are used to support the Center's special events, summer ecology program, work/learn and fellowship programs, and the salary costs of a docent coordinator and a part-time public program director. Expenditures are estimated to be \$182,000 in FY 1984 and \$190,000 in FY 1985.

Restricted Funds - These are provided through donations, bequests and foundation grants that are designated for specific subjects of investigation. For the Center, these include the Eppley Foundation Grant to support investigation of biological responses to solar radiation and the Rollins Endowment Fund used to support the study of physical measurements of radiation (estimated expenditures of \$13,000 in FY 1984 and \$5,000 in FY 1985).

Federal Grants and Contracts - These funds are provided by various Federal and State agencies for special projects which can be conducted at the Center because of the expertise of the Center's staff and its site characteristics. Contracts from the National Science Foundation, the Chesapeake Research Consortium, U.S. Department of Energy and the University of Minnesota will be approximately \$406,000 in FY 1984 and \$285,000 in FY 1985.

NATIONAL AIR AND SPACE MUSEUM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTP**		FTP**	
			FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	200	7,184	-	5	28	2,408	1	122	1	113
FY 1984 Base /1	209	7,798	-	8	28	2,189	1	107	1	151
FY 1985 Estimate	209	8,049	-	8	28	2,303	1	104	1	139

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>209</u>	<u>0</u>	<u>0</u>	<u>209</u>
11 Personnel Compensation...	5,393	143	-	5,536
12 Personnel Benefits.....	554	15	-	569
21 Travel.....	47	2	-	49
22 Trans. of Things.....	57	-	-	57
23 Rent, Comm. & Utilities..	119	6	-	125
24 Printing & Reproduction..	114	6	-	120
25 Other Services.....	741	30	-	771
26 Supplies & Materials.....	470	22	-	492
31 Equipment.....	<u>303</u>	<u>27</u>	<u>-</u>	<u>330</u>
Total	<u>7,798</u>	<u>251</u>	<u>0</u>	<u>8,049</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Air and Space Museum (NASM) serves as an international repository for artifacts and documentation related to the development of aviation, space flight, and space science. The Museum's programs encompass exhibitions, research, preservation/restoration, and education. The Museum serves a wide public and scholarly audience interested in the history and technical significance of aviation and space flight. In addition to its Mall location, the Museum maintains an off-site facility for the preservation and restoration of artifacts at the Paul E. Garber Preservation, Restoration and Storage Facility in Suitland, Maryland. No program increase is requested for FY 1985. Necessary pay of \$158,000 is required for existing staff and an amount of \$ 93,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The National Air and Space Museum has, since its opening in 1976, served as a focal point for public and scholarly interest in the history of air and space development. Utilizing state-of-the-art techniques, its exhibitions have been visited by over 70 million visitors to date. Its extensive holdings of artifacts, papers, photographs, microfiche and technical drawings serve not only in-house researchers, but interested scholars from throughout the United States and abroad. An active scientific program, aimed at understanding both Earth and planetary geology, continues as an important endeavor of the Museum. Active programs in collections management, preservation, and restoration of artifacts remain as a centerpiece of the Museum's curatorial efforts. As a public institution, considerable emphasis is placed on the education and outreach activities of the Museum through lectures, films, Spacearium presentations, and written materials for schools and visitors to the Museum.

Research - During FY 1983, new directions were set to establish the Museum as a primary center for research in the history of the science and technology of aviation and space. The Museum's plans in this regard will be aided by restructuring the research staff, to include an associate director, a curator of Manned Spaceflight, and a curator for Air Transportation. Extensive research by the Aeronautics Department is currently underway on the History of Aircraft publication project. This four-volume work, covering the history of flight from antiquity to the present, is expected to become the standard for researchers in the field. Research and documentation about the National Aeronautics and Space Administration's (NASA) new Space Telescope presently is being conducted with the resulting publication to coincide with the launch of the Space Telescope.

The Center for Earth and Planetary Studies is continuing its research in remote sensing. The addition of a computer in FY 1983 enabled real-time remote sensing on the planet Mars. FY 1984 will see real-time remote sensing on Uranus when Viking reaches its final destination. Real-time remote sensing allows researchers to better perform geological mapping of planets' surfaces and provides data on any surface changes which may occur.

Exhibitions - In FY 1983, the Museum expanded its exhibitions and presentations programs with the opening of the gallery "Stars." "Stars" explains to a wide audience the historical, commercial and cultural aspects of the Sun and stars. Another major enhancement to the Museum this fiscal year is the "Live from Mars" exhibit which shows photography of the Martian surface taken by the Viking 2 Lander and transmitted to Earth. The Museum also completed other smaller exhibitions in FY 1983 which encompass significant areas in the history of air and space, such as: "James Webb, The Man Behind Apollo"; and "Americans View the Birth of Flight," commemorating the 200th anniversary of man's first tethered flight in a balloon. Additions to the art collection have enabled showing of the following exhibitions: "Airshow," an exhibition of photography by Budd Davisson; "Henri Farre," the first aviation combat artist; "The Artist and the Space Shuttle"; and "The Aviation Art of Frank Wootton." FY 1984 will include the major exhibition "Golden Age of Flight." This will be a full gallery covering the historically significant period between 1919 and 1939 including record-setting distance flights, oceanic flights, air races and exploration. Additional plans for FY 1984 cover such topics as bush pilots; the Harry S. Truman Centennial, honoring the air and space-related activities during the Truman administration; World War II Sea-Air Photography; and a commemorative exhibit on the renowned aviation pioneers Edward Heineman and Kelly Johnson.

Exhibit plans for FY 1985 include increasing emphasis on scientific topics that also are of historical interest. Work will begin on "Looking at Earth," a gallery which will explain and display the use of satellites in studying communication and the earth's weather and land resources. The exhibit on Scott Draper will follow the life

and achievements of this well-known rocket scientist. A smaller exhibit on V-2 science will show the use of this German rocket in the development of our modern-day rockets. The extremely popular art exhibits will focus on "Modern Masters of Air and Space, 1890 to Present" and "Sea-Air Photography." Upgrading of exhibitions also is planned for Early Flight, and Balloons and Airships galleries.

The need for additional storage and exhibition space for large aircraft such as the Concorde or Space Shuttle has been identified. Preliminary planning for this need is discussed in the Facilities Planning, Renovation, Restoration, and Construction section of this budget justification.

Public Education and Orientation - The Public Services and Education Division of the Museum provides tours and develops publications, demonstrations, lectures, seminars, workshops, audio-visual material and information requests for the general public and educational institutions. It will focus during FY 1985 on expanding associations with academic and scientific organizations as a part of the Museum's expanded research efforts.

During FY 1983, tours were conducted for over 50,000 visitors with increased emphasis on service to the handicapped. In its first two years of operation, the Teacher Resource Center has provided approximately 20,000 educators with aerospace resources and science activities for use within their classrooms, while the Regional Resource Program has reached over 26,000 individuals in 32 states during this fiscal year. These participants are provided with training and planned programs in order to conduct presentations in aerospace education in their own schools and communities across the country. In FY 1983, an extensive program of free public lectures included the well-known science reporter Jules Bergman, and scientists Phillip Morrison, Gerry Neugebauer, Martin Schwarzschild, Virginia Trimble, and Fred Whipple.

The Museum's publications division produced the following books by the curatorial staff in FY 1983: Vengeance Weapon 2, Prelude to the Space Age, U.S. Women in Aviation 1919-1929, Engines in Museums Around the World, Aircraft in Museums Around the World and the "Sky Interpretation Resource Bulletin." Plans currently are under way for these publications in FY 1984: Congreve and Hale Rockets, U.S. Women in Aviation 1930-1939, Five Goddard Rockets, Winged Wonders: The Story of the Flying Wing, and the "Sky Interpretation Resource Bulletin."

In order to improve the quality of food services provided to the increasing volume of visitors to NASM, plans are well underway for the addition of an 800-seat fast food cafeteria, and a 200-seat family restaurant on the east terrace of the Museum.

Development of Collections - In FY 1983, the following aircraft were acquired for the collection: the Bell Model 206-1L helicopter, the first helicopter to fly around the world; a Douglas A-1H; an Antonov An-2, a Russian design which is the largest biplane in operational use; a Kawanishi George, a rare World War II Japanese fighter; a Mooney Mite, the first of a line of Mooney aircraft; and a Bellanca Cruisair from the early 1940s.

Additional space artifacts acquired include: the 1962 engineering prototype of the Orbiting Solar Observatory, an Apollo Telescope mount, a cluster of six telescopes from Skylab, a camera used in Landsat missions, memorabilia and personal items used by the crew of the first Space Shuttle mission, the flight suit worn by the first American woman in space, Sally Ride, the integration test model of the International Ultraviolet Explorer satellite, and the NASA Lear jet infrared telescope.

The following aircraft have been restored at the Garber Facility in FY 1983: the Focke-Wulf 190, Beech 17 and the Northrop Flying Wing N1M. Plans for FY 1984 include two

pre-World War I aircraft, the Maupin-Lanteri and Fowler Gage Tractor; the Whitman "Buster"; the 1912 Wiseman-Cooke; as well as an original World War I fighter, the Spad XIII. During FY 1985, aircraft scheduled for restoration include the Kikka, OS2U, Herring Curtis and HO 229. The special program begun this fiscal year to slow the deterioration of aircraft not yet restored has been very successful and will continue indefinitely.

Current plans are to open an additional building for public exhibition at the Garber Facility. The popularity of this facility continues to increase.

The recently established Department of Records Management is continuing the important and innovative task of storage and retrieval of the Museum's entire photographic collection. Over 200,000 photographic images have been transferred onto videodiscs, facilitating greater access to the collection while eliminating loss or destruction of the original photographs. Each disc is indexed with descriptive identification of each image, enhancing its use as a research tool for the general public and historians. These discs are easily and inexpensively duplicated, making wide distribution to other research institutions possible. The Museum has already made the first disc available to research facilities and plans are underway for additional discs. Pioneering efforts in this field have attracted international attention as a model for other museums, corporations, and educational institutions for the future handling of their own photographic and specimen collections.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from a variety of sources including the Museum's share of net proceeds from the shops, restaurant and concession fees, net proceeds resulting from the bureau activities (such as the Theater and Spacearium) and a small allotment. In addition to meeting expenses of the Theater and Spacearium, these funds are used to finance fellowships, guest lecturers, symposia, and special events for the opening of new exhibits. Portions of the proceeds from the Theater and Spacearium are being reserved for the replacement of the film entitled "Flyers" and for support of other Institutional programs. Currently, treatments are being considered for an IMAX film on the comparison of natural and mechanical flight planned for viewing in FY 1985. Outside funding has been received for a new IMAX film on the Space Shuttle to be completed in FY 1985. This fiscal year saw the premiere of the new multi-image show "200 Years of Flight" in the Spacearium. These funds also support the publication costs associated with the Air and Space magazine, a quarterly publication, distributed to over 15,000 educators nationwide, containing current information on aviation and space topics for use in the classroom. Continuing annual support also is provided for the Lindbergh Chair of Aerospace History and the Chair in Space Science History for distinguished scholars at the Museum. Other fellowship programs include the Guggenheim and Verville, which support pre- or post-doctoral students in aviation or space science and other distinguished scholars to continue their research at the Museum.

Restricted Funds - Funds provided here are in the form of restricted endowments which specify the use of the donation or bequest, and of gifts and foundation grants by individuals, organizations or corporations for specific purposes. The largest examples of these funds are the Ramsey Endowment, used to finance selected research relating to naval flight history (estimated expenditures of \$27,000 in FY 1984 and \$25,000 in FY 1985), and the Guggenheim Endowment, which is used for lectures and stipends (estimated expenditures of \$34,000 in FY 1984 and \$20,000 in FY 1985).

Federal Grants and Contracts - These are provided by various agencies and departments for special projects which can be conducted at NASM because of its expertise in a given area. Continuing funding from NASA supports studies in planetary research by

NASM's Center for Earth and Planetary Studies. The following research activities are funded by NASA. Funding for the analysis of Martian terrain terminated at the end of FY 1983 (actual expenditures of \$11,000). Photogeologic investigation, planetary terrain and thermal infrared studies funding will continue through FY 1985 (estimated expenditures of \$89,000 in FY 1984 and \$94,000 in FY 1985). Funding for the Regional Planetary Facility at NASM is expected to continue through FY 1985 and funding to study the Apollo X-ray will terminate at the end of FY 1984 (estimated expenditures of \$21,000 in FY 1984 and \$15,000 in FY 1985). Funding for the morphologic studies of the Moon was \$38,000 for FY 1983 and is expected to continue through FY 1984 for \$13,000. The Space Telescope Historical Project, a combined effort with the Johns Hopkins University, is funded from NASA through FY 1985 (estimated expenditures of \$28,000 in FY 1984 and \$30,000 in FY 1985).

NATIONAL ZOOLOGICAL PARK

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**		Amount	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	309	10,042	-	7	-	112	-	82	3	176
FY 1984 Base /1	319	10,755	-	10	-	114	-	95	3	87
FY 1985 Estimate	319	11,074	-	10	-	114	-	93	3	90

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>319</u>	<u>0</u>	<u>0</u>	<u>319</u>
11 Personnel Compensation...	8,129	205	-	8,334
12 Personnel Benefits.....	854	21	-	875
21 Travel.....	33	2	-	35
22 Trans. of Things.....	10	-	-	10
23 Rent, Comm. & Utilities..	62	3	-	65
24 Printing & Reproduction..	17	1	-	18
25 Other Services.....	320	19	-	339
26 Supplies & Materials.....	1,087	56	-	1,143
31 Equipment.....	235	12	-	247
42 Insur. Claims & Indemn...	8	-	-	8
Total	<u>10,755</u>	<u>319</u>	<u>0</u>	<u>11,074</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Zoological Park is a leading international center for animal exhibition, research and education. These activities are conducted on the 168-acre site at Rock Creek in Washington, D.C., and the 3,150-acre site near Front Royal, Virginia. Through its programs in research, conservation, animal health, and education, the Zoo serves both the public and specialized audiences in understanding the role which animals play in the environment. No program increases are being sought in FY 1985. Necessary pay of \$226,000 is required for existing staff and an amount of \$93,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The National Zoological Park is charged with the maintenance and welfare of approximately 2,000 animals comprising 430 species at the Rock Creek site. Animals are selected for their value to public understanding, research and conservation. At the Conservation and Research Center at Front Royal, Virginia, 350 animals representing 46 species are housed. These animals are selected for their long-term breeding potential and generally are threatened or endangered in their natural habitat.

The Zoo has a variety of programs aimed at meeting its objectives as a public institution devoted to the care for, exhibition of, and research on the species that constitute the collection. Equally important is the study of conservation of animals in their natural habitat. The major programs of the Zoo are grouped as follows: Animal Exhibition, Animal Management, Animal Conservation and Propagation, Research, Public Education and Information, and Support Services.

Animal Exhibition - A primary concern of the Zoo is to enhance public understanding of animals and their role in the environment. To meet this need, the Zoo strives to exhibit animals in as natural a manner as possible. Sufficient opportunity is afforded the visitor to observe animals without visual impairment and if desired to refer to concise information panels for detailed knowledge about the species, ecology, behavior and interaction with other animals. In April 1983, the Zoo reopened the Small Mammal House. The building was originally constructed in 1937 as a Depression-era Work Projects Administration undertaking. It was typical of Zoo exhibit halls of the period in which rows of small bar-fronted cages with little decoration housed a great variety of animals. The old cages have been replaced with new larger glass-fronted enclosures that will give the animals more room and will allow better viewing by the public. Forty-five species of small mammals, including cats, rodents, weasels, marmosets, foxes, shrews, and marsupials, are displayed in 35 new enclosures. Great care has been taken to create exhibits in which the animals can live comfortably and that provide attractive settings. Many living plants, as well as rocks, tree limbs, water pools, and a variety of floor surfaces, have been used in an effort to simulate the animals' natural habitats. The totally new Monkey Island exhibit, the new home for a colony of Barbary macaques, also opened in April 1983. The primates live on an island that includes a spectacular 25-foot-high bluff of natural stone, landscaped with pine trees and a waterfall that flows into a moat at the front of the exhibit.

Animal Management - The care of the animals under the Zoo's custodianship is of preeminent importance. Animal enclosures are designed with species' requirements as a major consideration. Efforts also are directed at providing modern health care facilities and offering the latest techniques in preventive and emergency treatment, surgery, nutrition, dentistry, and neonatal medicine. Comprehensive medical records are kept on all animals in the collection to ensure proper attention to all health needs.

Through the first eight months of FY 1983, the Zoo veterinarians treated 1,575 medical cases, of which 327 required hospitalization. For the same period 168 animals were quarantined for an average of 35 days each, during which time various screening procedures and examinations were performed. About one-third of the Zoo's medical cases and one-half of the anesthetic procedures are done on animals from the Conservation and Research Center, at Front Royal, Virginia. In order to meet this growing demand for medical care, a hospital facility will be designed and constructed using construction funds appropriated to the Zoo for this purpose in FY 1984. This new medical facility will provide the necessary medical, surgical and research support for the Center, and reduce the inherent risks of transferring sick animals from Front Royal to the Rock Creek facility.

Animal Conservation and Research - The goals of animal exhibition, propagation, education, and conservation cannot be met without an active research program dedicated to an understanding of the life histories of the species in the Zoo's custodianship and in the wild.

Research has indicated high juvenile mortality through inbreeding in zoos. The Zoo is working to solve this problem by demographic and genetic modeling in selected endangered species. Carefully modeled breeding programs should maintain viable captive populations of critically endangered species, such as golden lion tamarins. The Zoo will test these models in FY 1985 and expand the program to cover other endangered species in cooperation with zoos throughout the world. Zoo staff will begin laboratory studies to assess the degree of genetic relatedness of individual animals and species through blood and chromosomal analyses.

In a collaborative project with the Smithsonian's International Environmental Science Program, the Zoo is attempting to determine whether golden lion tamarins can be returned to their native habitat in Brazil. A similar effort to reintroduce Rothchild's mynah to Bali is also in process.

Studies of the relationship between social behavior, mating systems, and ecology have continued, with emphasis on the evolution of monogamous mating strategies in birds and mammals. Variability in strength of the pair bond and paternal care of offspring has been related to species' ecology.

The Zoo also has been developing a training program in wildlife management techniques and conservation biology for biologists from tropical forest countries. Training courses have been held at the Conservation and Research Center, as well as in Sri Lanka, Argentina and Indonesia. Simultaneously, several ecological studies are being pursued, for example, of the foraging habits of migratory neotropical birds and their response to deforestation. The research department welcomed nearly 40 graduate students, post-doctoral fellows and visiting scientists in the last two years, several from overseas countries.

The training program in clinical zoological medicine provides pre-doctoral veterinary students in their final year of clinical training an opportunity to work with the Zoo's veterinary staff for a six- to eight-week period. Over the last six years, more than 45 students have received training.

Animal Propagation - The Conservation and Research Center plays an important role in the research and breeding programs for rare and endangered species. Its facilities provide a unique environment for the establishment of selected breeding programs that cannot be matched in a standard zoo setting. The Center has bred successfully such animals as zebras, Bactrian camels, Scimitar horned oryx, Pere David's deer, maned wolves, lesser pandas, binturong, and selected birds, especially cranes.

A major milestone in propagation occurred in FY 1983, when, for the first time ever in the United States, a natural mating occurred between the giant pandas resulting in a live birth. Although the cub died, techniques and behavior were carefully monitored for future study.

Public Education and Information - As a public institution, the Zoo constantly must provide innovative education programs for the public, at all levels, in order to sensitize them to the importance of animals and conservation of the environment as well as to provide information on the myriad ways in which animals have adapted to their environment. The Zoo responds to this need by providing programs for all age levels, and in a variety of contexts ranging from guided tours, films, lecture series, and major symposia to three hands-on mini-education facilities known as Zoolab, Birdlab and Herplab. The Herplab activities have been developed for Zoo visitors of age six and older. The materials focus on reptiles and amphibians, but the concepts conveyed are general, including: anatomy, behavior, communication, and scientific research. The Zoo also offers more formal academic training by providing opportunities for veterinary and biology students and interns.

Among the major accomplishments in education in FY 1983 were two major symposia for the public: one focusing on animal extinction and a second on animal communication. Two symposia are planned for FY 1984. This new outreach effort was received enthusiastically and it is hoped that this activity will be expanded in the future. Publications resulting from the symposia are disseminated widely.

Support Services - The Support Services offices are responsible for graphics, exhibits, security, operation, repair and maintenance of real property (buildings, grounds and plant equipment) and construction of new facilities at the National Zoological Park. The Zoo's Rock Creek facility consists of approximately 168 acres with 60 structures of which 18 are principal buildings, a network of over 18 miles of paths and roadways and 2.4 miles of perimeter fence. The Facilities Management Office is responsible for the maintenance and repair of all Zoo utility systems.

At the Conservation and Research Center, Support Services is responsible for approximately 3,150 acres of land, 80 facilities containing approximately 236,000 square feet of space, 2.5 miles of paved roadways, 20 miles of jeep trails and 30 miles of fences.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are derived primarily from fees for general use of the facilities at the Conservation and Research Center at Front Royal, Virginia, including use of the conference area by authorized visitors. Expenditures are made for the support and maintenance of facilities at Front Royal (estimated expenditures of \$42,000 in FY 1984 and \$43,000 in FY 1985) and for the purchase of animals for the collection (estimated expenditures of \$52,000 in FY 1984 and \$53,000 in FY 1985).

Restricted Funds - These are provided through gifts and foundation grants and are used to support specific research projects and education programs. For example, funds provided from the American Association of Zoo Veterinarians are being used to support research in the areas of artificial insemination (estimated expenditures of \$20,000 in FY 1984 and in FY 1985); and to study viruses in zoo mammals (estimated expenditures of \$12,000 in FY 1984 and \$9,000 in FY 1985). Funds from the National Geographic Society and the World Wildlife Fund are supporting the golden lion tamarin reintroduction program.

Federal Grants and Contracts - These are provided by various government agencies and departments for research being conducted by Zoo staff. Continuing support from the National Institutes of Health is being used to study primate social organizations (estimated expenditures of \$36,000 in FY 1984 and in FY 1985). In addition, a grant from the National Science Foundation is being used to develop science education materials for families to use to learn about zoology in the informal setting of the Zoo (estimated expenditures of \$51,000 in FY 1984 and \$54,000 in FY 1985).

ASSISTANT SECRETARY FOR HISTORY AND ART

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	9	374	1	97	-	5	-	-	-	-
FY 1984 Base /1	9	619	1	92	-	6	-	1	-	-
FY 1985 Estimate	9	429	1	92	-	-	-	1	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Change	FY 1985 Estimate
FTE Allocation.....	<u>9</u>	<u>0</u>	<u>0</u>	<u>9</u>
11 Personnel Compensation.....	359	8	-	367
12 Personnel Benefits.....	37	-	-	37
21 Travel.....	25	-	-19	6
24 Printing and Reproduction.....	4	-	-2	2
25 Other Services.....	183	-	-178	5
26 Supplies and Materials.....	7	2	-1	8
31 Equipment.....	<u>4</u>	<u>-</u>	<u>-</u>	<u>4</u>
Total	<u>619</u>	<u>10</u>	<u>-200</u>	<u>429</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Assistant Secretary for History and Art is responsible to the Secretary for the overview and management of the Smithsonian Institution's history and art activities and programs. This Office also oversees the Joseph Henry Papers, an editorial project to publish the manuscripts of Joseph Henry (1797-1878), the eminent American physicist and first Secretary of the Smithsonian Institution. No program increase is requested for FY 1985. Funds provided in FY 1984 for Harry S. Truman Centennial activities will no longer be required in FY 1985. Necessary pay of \$8,000 is required for existing staff and an amount of \$2,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. The Office of the Assistant Secretary for History and Art: With a base of 4 workyears and \$403,000 (including \$200,000 in FY 1984 for Truman Centennial activities), the Office of the Assistant Secretary for History and Art advises

and assists the Secretary in overseeing the activities of the Smithsonian history and art bureaus. The Office also coordinates and manages Institution-wide special projects, programs, exhibitions and publications commemorating significant historical events and individuals, such as the centennial of the birth of Harry S. Truman and the bicentennial of the signing of the U.S. Constitution; administers the Regents' Collections Acquisition Program, which was established to facilitate the purchase of major acquisitions by Smithsonian museums; administers the Major Exhibition Program; and oversees the publication of books and guides to the history and art collections. The bureaus and offices reporting directly to the Assistant Secretary for History and Art are: the Archives of American Art (in New York and other cities); the Cooper-Hewitt Museum in New York City; the Center for Asian Art, consisting of both the Freer Gallery of Art and the Sackler Gallery of Art; the Hirshhorn Museum and Sculpture Garden; the National Museum of African Art; the National Museum of American Art; the National Museum of American History; the National Portrait Gallery; the American Studies Program; the Joseph Henry Papers Project; and the Anacostia Neighborhood Museum. As a result of Smithsonian management decisions and Congressional action in the FY 1984 appropriations process, the remaining program functions of the Division of Performing Arts, which had been transferred to the History and Art Activity in FY 1983, were consolidated with the National Museum of American History. The Office of the Assistant Secretary for History and Art also has a responsibility for overseeing the program development and administration of the Center for African, Near Eastern and Asian Cultures. This new cultural complex, which is scheduled for completion in FY 1986, will house the National Museum of African Art and the Sackler Gallery of Art as well as provide space and facilities for research, conservation, education and international scholarly conferences.

Truman Centennial

As part of the FY 1984 appropriation, the Institution received \$200,000 for activities and programs to commemorate the centennial of the birth of President Harry S. Truman. Truman Centennial events, scheduled from April through November 1984, will include a 20-minute biographical film on Truman to be shown at the National Museum of American History and which will also be available for national distribution; an exhibition at the National Air and Space Museum on the Berlin Airlift of 1948-1949; a lecture series and day-long seminar on the Truman presidency, to be held in the spring; and a two-day scholarly conference in September on domestic and foreign policy during the Truman era, sponsored by the National Museum of American History and the Woodrow Wilson International Center for Scholars. Other events will be held in cooperation with the National Archives and the Library of Congress.

II. Joseph Henry Papers: With a base of 5 workyears and \$216,000, the editor and staff of the Joseph Henry Papers have been preparing since 1967 a documentary edition of the manuscripts and papers of Joseph Henry (1797-1878), the eminent American physicist and first Secretary of the Smithsonian Institution. Having gathered approximately 80,000 documents, the project staff have been researching and preparing for publication a select fifteen-volume letterpress edition, supplemented by a complete microfilm edition. Four volumes have already been published by the Smithsonian Institution Press, in addition to a special volume of Henry's lectures. The fifth volume went to press in FY 1984. As the staff continues to search for additional manuscripts, work on the sixth volume, which chronicles the last years of Henry's tenure at the College of New Jersey (Princeton) and his selection to head the Smithsonian Institution, began in FY 1983. Completion of the editorial work on this volume is now anticipated in FY 1985. Work on the supplementary microfilm edition is proceeding and progress continues to be made.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided primarily by allotments and are used to pay the salary and expenses of the Assistant

Secretary for History and Art, memberships for the Institution in the American Council of Learned Societies and the American Crafts Council; and expenses associated with directorship search committees. In FY 1984, funds will be used to defray expenses associated with the Hirshhorn Museum and Sculpture Garden directorship and the Sackler Gallery of Art assistant directorship search committees. Special Purpose funds provided editorial assistance for the Finders' Guide to Decorative Arts in the Smithsonian Institution, which will be published in FY 1984.

Restricted Funds - In FY 1985, the Joseph Henry Papers Project anticipates support from the National Academy of Sciences to help defray the cost of editing the Papers.

NATIONAL MUSEUM OF AMERICAN HISTORY

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
FY 1983 Actual	291	9,530	1	90	1	355	1	472	-	3
FY 1984 Base /1	300	9,943	1	91	1	222	-	332	-	5
FY 1985 Estimate	300	10,887	1	91	1	225	-	580	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Change/ Increase</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>300</u>	<u>0</u>	<u>0</u>	<u>300</u>
11 Personnel Compensation...	8,122	201	212	8,535
12 Personnel Benefits.....	853	21	22	896
21 Travel.....	54	-	10	64
22 Trans. of Things.....	37	4	15	56
23 Rent, Comm. & Utilities..	76	5	-	81
24 Printing & Reproduction..	37	4	7	48
25 Other Services.....	468	34	351	853
26 Supplies.....	190	10	18	218
31 Equipment.....	26	2	25	53
Collections Acquisition..	<u>80</u>	<u>3</u>	<u>-</u>	<u>83</u>
Total	<u>9,943</u>	<u>284</u>	<u>660</u>	<u>10,887</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Museum of American History (NMAH) collects and preserves artifacts which represent this country's material heritage and provide the basis for its extensive educational programs. Through a major reinstallation of its permanent exhibits, expanded educational programs, and continued research and publications, the Museum offers visitors a comprehensive presentation of the history of the United States. In addition to exhibits in the NMAH building, the Museum maintains the exhibition "1876 Centennial," located in the Arts and Industries Building and occupies collections storage space in five buildings at the Smithsonian Suitland Facility. For FY 1985, a program change and increase of \$660,000 is requested to continue the ten-year process of reinstallation of exhibit and other public spaces initiated in

FY 1981 (\$525,000); to hire two conservators and three technicians and fund selective storage equipment upgrading (\$100,000); and to hire a data base administrator to continue the refinement and coordination of automated systems (\$35,000). The sum of \$525,000 for the reinstallation of public spaces represents the permanent reprogramming of funds previously requested in the Major Exhibition Program section of this budget request. No new positions are sought and workyears will be provided from current resources. Necessary pay of \$222,000 is required for existing staff and an amount of \$62,000 is sought to compensate for the effects of inflation in non-salary areas of expense.

PROGRAM - The National Museum of American History presents diverse programs consistent with its responsibility to house and care for collections. Public programs including exhibitions, performances, special celebrations, education and research publications provide over five million visitors each year with educational experiences in American history uniquely related to material culture. People who cannot directly participate in the museum experience are reached through a variety of services and activities that go beyond the Mall. Publications and lectures to university and other audiences describe the collections and explore scholarly themes in American history. Loans of objects--nearly 500 in FY 1983--assist museums in other cities to produce exhibits on a variety of cultural and technological themes. The Museum staff also collaborates with other institutions, providing direct assistance in the areas of exhibits development, collections management, and administration.

The Museum places a high priority on the broad programs concerned with management of collections and the reinstallation of permanent exhibits. The Museum completed a comprehensive inventory of the collections in June 1983 and is continuing maintenance of inventory data, adding new accessions and recording changes of location or status due to loans and exhibitions. Work will continue to refine and expand the information gathered during the inventory process--adding descriptive data from registrarial and curatorial files to provide a single information data base on each object or group of objects. This consolidated body of information will improve accountability of the collections, provide better opportunities for access and study, for developing exhibitions, and for responding to public inquiries about the collections.

Significant progress toward achieving a comprehensive collections management program, was made through installation of an in-house minicomputer system. This system will provide curators direct access to collections data and allow for more efficient updating and control of information. In future years automated collections management systems will include expanded descriptive and cultural information necessary to develop automated visitor information systems which will describe scheduled events and new exhibits, provide access to specific object information, and improve response time to some 100,000 public inquiries about the collections received each year.

In addition, the Museum has initiated a long-range program to improve the physical care, preservation and security of the collections. In FY 1983, the NMAH Archives Center began operation with the hiring of an archivist and the redirection of existing staff resources. Efforts to consolidate documentary collections of the Museum has begun with the relocation of the Warshaw Collection and other photographic collections to the Archives. Over the next several years, work will continue to reorganize these collections, create finding aids (including inventories) and provide systematic conservation treatment, improve accountability of the 400 archival collections and provide better care and conditions for their use by scholars and staff.

Progress also was made in improving the security and care of three-dimensional objects stored on the Mall and at the Suitland facility. In FY 1983, the Museum initiated a systematic survey of the conservation treatment and storage improvement needs of the collections. At the Mall building, the security of valuable collections such as philatelic materials has been improved by limiting access to the collections. Beginning in FY 1984, the Philatelic and Numismatic Collections will be reorganized and relocated to improve access for study and management, and will be reinventoried and placed in secure and compact storage units. Furthermore, the Museum's commitment to improve the physical care of the collections will be strengthened by its facilities in the Museum Support Center. NMAH's conservation laboratory at the MSC began operations during the summer of 1983 and selected collections are scheduled to be moved to MSC storage facilities starting in 1985.

Exhibit programming, also a major priority, has undergone substantial revision to include long- and short-range planning efforts. In FY 1983, substantial preparation continued for the opening of several new permanent exhibitions, and the Museum produced a number of special temporary exhibits with historical, cultural or technological themes. One of these special exhibits, "M*A*S*H: Binding Up the Wounds," documents the substantial contribution made to the field of entertainment through television by examining aspects of military and medical history presented through this series. With over 312,000 visitors viewing the exhibit during the first six months of its run, it has proven to be one of the most popular exhibits ever mounted by the Museum.

During FY 1984, new exhibits at the Museum included "Germans in America: Three Centuries of Tradition and Innovation," commemorating the three hundredth anniversary of the first permanent German settlement in the Americas and illustrating the contributions made by German-Americans to this nation's cultural, scientific and technological development. A second exhibit associated with this anniversary, "AMERICA," featured a unique world map from Germany made in 1507, that was possibly the first map to use "America" as a geographical place name. "Inventing Standard Time," marked the one hundredth anniversary of the establishment of Standard Time in the United States and Canada. The Museum, in cooperation with the Smithsonian Office of Horticulture, presented "Trees of Christmas," a holiday exhibit consisting of 12 spruce and fir trees decorated with handcrafted ornaments illustrating various crafts and traditions as well as storybook themes and other special topics.

In December 1984, the first in a series of three permanent exhibitions will open to begin the reinstallation of the second floor. "After the Revolution: Life in America" will present a reinterpretation of everyday life in the new republic, to be followed by planned installations in FY 1986 and FY 1988 to illustrate the life of the everyday person in the United States up to the present time. The reinstallation of the first floor will begin with the opening in FY 1985 of an introductory exhibition on American industrialization and an exhibit highlighting the cultural dimension of science in the United States, and will continue in 1986 with an introductory exposition on the materials of which the Museum's artifacts are made.

Research on a variety of topics in American social and technological history at the Museum contributes to the publication of scholarly works, books of general interest, and exhibit catalogues. During FY 1984, a number of publications are nearing completion, including the fourth volume of a biography of General George C. Marshall, a scholarly bibliography of numismatic works, and a study of the development of Afro-American communities in ten northern cities before the Civil War. The Museum also continues to provide editorial guidance as well as regular scholarly contributions to Technology and Culture, the official journal of the Society for the History of Science and Technology.

The Museum's public service program was strengthened significantly when it assumed the management of several major research and performance programs formerly conducted by the Smithsonian's Division of Performing Arts. Public program offerings for FY 1984, feature concerts of the Smithson Quartet, the Smithsonian Chamber Players and the Smithsonian Chamber Orchestra, the latter two in collaboration with the Resident Associate Program. The Black American Culture Program presents conferences and performances recognizing important contributions made by black composers and artists with programs honoring Lucie E. Campbell, the first published woman composer of black gospel music, and a comprehensive examination of Spirituals and black choral songs. The annual Holiday Celebration highlights the ethnic heritage of Americans as expressed in the Christmas and Hannukkah, and New Year's traditions; with special emphasis on the tri-centennial recognition of German settlement in America. In FY 1984, the Doubleday Lecture Series theme "Americans--On Stage" will feature David McCullough with an accompanied talk on the Brooklyn Bridge; a dramatic reading of "Goodly Creatures," a recent play by William Gibson; a performance of the music of Busby Berkeley by Jack Bethards and a 40-piece orchestra; and an evening of Rogers and Hammerstein music. The refurbishment of the area adjacent to the Ice Cream Parlor into a Victorian "Palm Court" will provide additional space in the Museum for the presentation of programs on American music.

Additions to the Museum's collections in FY 1983 included the purchase of an enameled tea kettle, made for advertising purposes in the 1870s and a rare marked example of an item commonly used in American households in the late 19th and early 20th centuries; a white cotton hand-knitted petticoat dated 1722, a masterpiece of the knitter's art as well as an important costume artifact; 90 Perkins Electric sketches and watercolors, ca. 1885, relating to the work of the black electrical draftsman and inventor, Lewis Howard Latimer (1848-1928); "The Autoperipatetikos," ca. 1862, an early example of an American automaton complete with original clothing, packaging and directions--the first American automaton acquired by the Museum; a portable electrostatic globe machine, ca. 1760, one of only two known to exist of this construction for use in early experiments with frictional electricity; and an American Eagle sewing machine, 1855, the first known example of this type. Significant gifts include an electric kiln owned and used by Gertrude and Otto Natzler, American studio potters, who brought the kiln with them from Austria to America in 1938 where it played an influential role in American ceramics; the armor costume worn by Francis X. Bushman, an important performer in the 1926 production of Ben Hur; sunglasses and glasses case used by Eleanor Roosevelt and a pince-nez used by Franklin D. Roosevelt, both association pieces of historical importance; the Budweiser rocket, a jet-propelled car which was the first land vehicle to exceed the speed of sound; an 1878 bandstand in excellent condition from Jacksonville, Illinois used for weekly concerts up until the First World War will be installed on the west grounds of the Museum for live performances once again; the medical kit used at the autopsy on the body of Abraham Lincoln; and a Viennese concert grand piano ca. 1815, a rare and beautiful instrument in original condition, reputed to have been owned by Beethoven, which fills a gap in the Museum's collections of European instruments.

In FY 1984 and FY 1985, additional emphasis will be placed on acquiring significant collections and artifacts representing 20th-century culture and technology for use in the development of new exhibitions, such as automation machinery and other labor-saving devices, and objects documenting the social and cultural history of minority groups in America.

EXPLANATION OF PROGRAM CHANGE - For FY 1985, a reprogramming of \$525,000 is requested to continue the ten-year process of reinstallation of exhibit and other public spaces initiated in FY 1981. This sum represents a permanent reprogramming of funds previously requested in the Major Exhibition Program section of this budget request.

Exhibit Reinstallation Program (\$525,000) - Since FY 1981, the planning and implementation of a long-term process of reinstallation of exhibit and other public spaces has remained a major program priority for the Museum with primary support for this long-term process provided from the Major Exhibition Program. Early in 1982, a ten-year exhibition plan to reconfigure the major public spaces of the Museum was completed with stated goals to address the Museum's mandate as the National Museum of American History and to upgrade over eight and one-half acres of existing installations and orientation areas, many of which date from the 1960s. Work has begun with the reinstallation of first and second floor areas to present a broad range of perspectives on American history. Exhibitions on the first floor will introduce the visitor to the history of this country through developments in technology and science, and visitors to the second floor, will view the past in terms of social and cultural developments. Further, the first and second floor central corridors and rotundas will serve as orientation areas between exhibits and provide vistas highlighting large and important artifacts such as The Star-Spangled Banner and the Foucault pendulum.

Initial work began in FY 1981 with the reconfiguration of the central corridors and rotundas, removal of escalators which cluttered the north and south entrances, and opening of stairwells connecting the Museum's exhibition floors. A new signage system was installed to guide the public through exhibition halls as work proceeded. The highlight of the refurbished second floor entrance is The Star-Spangled Banner, now protected from light and dust by means of a large, opaque decorated cover which is lowered once each hour and accompanied by music and narration to reveal the original flag to the public. In early FY 1984, textile panels depicting other major artifacts from the Museum's collections were installed to complete the design for improved visitor orientation within the Mall entrance area.

Work on the first floor included the installation of a series of arches in the Pendulum area incorporating what is believed to be the earliest surviving cast iron building facade in the United States--the 1850 front of the Brock's store in Philadelphia. Behind the arches, a turn-of-the-century "Palm Court" is being constructed, incorporating the original structural and decorative elements of the first Horn and Hardart food automat facility and the original interior of a period confectioner's shop. This space, adjacent to the refurbished ice cream parlor, will provide the public an area in which to gather and rest as well as provide a place to assemble groups for tours and other educational programs.

The reinstallation of the Museum's permanent exhibit spaces also has progressed in accordance with the long-term plan. In December 1982, the 15-year old "Hall of Everyday Life in the American Past" was closed, and remodeling began on its successor, "Life in America," which will depict American social and cultural development from the 18th-century through the 20th century. Period rooms and artifacts will demonstrate how ways of life have differed among people of varied occupations, social situations and financial means. The 18th-century section of "Life in America" will open in early FY 1985. Two other new exhibitions, "Engines of Change" and "Materials" are currently under development. "Engines of Change," will illuminate the forces behind the transfer of industrial technologies from England to America and document the subsequent course of the industrial revolution in this country. "Materials," will trace man's ever-widening mastery of materials, from stone and wood to sophisticated alloys and chemical polymers and demonstrate its impact on our scientific and cultural development. "Materials," by interpreting and commenting upon the wide range of natural and man-made substances from which human ingenuity has fashioned the artifacts on display, will serve as an orientation for visitors to all the Museum's exhibitions.

The sum of \$525,000, representing the permanent reprogramming of funds previously funded by the Major Exhibition Program, is requested to continue this long-term process of reinstallation of exhibit and other public spaces. For FY 1985, these funds are needed to complete two permanent exhibitions and allow work to begin on three more: the design and installation of "Engines of Change" (\$298,000); the initial design and installation of "Materials" (\$143,000); and research, including surveys of collections, consultations with other organizations, and design work for "Science in American Life," "An American Anthology," and the 19th-century section of "Life in America" (\$84,000). "Science in American Life," will address the need to understand the development of science in the context of American social and cultural history, will provide sketches of scientists, explore the scientific imagination, identify significant events and individuals who have contributed to the history of science, amplify important themes such as science and ethics, professionalization of scientific disciplines, the continuing role of amateurs, and the significance of popular science. "An American Anthology" will present a selection of objects of great significance to American History on a rotating basis in a highlights gallery located next to the "First Ladies' Gowns." The objects selected for "An American Anthology," will represent the range and diversity of the Museum's collections, orient visitors to collections on display in other exhibits and will be described in a flier which will provide visitors additional information about their significance and a reading list for further study.

EXPLANATION OF PROGRAM INCREASE - For FY 1985, an increase of \$135,000 is requested to hire two conservators and three technicians and fund selective storage equipment upgrading (\$100,000); and to hire a data base administrator to continue the refinement and coordination of automated systems (\$35,000). No new positions are being requested as workyears will be allocated from current resources.

Collections Conservation (\$100,000) - The recent inventory has focused attention on the need for conservation of the collections, both to restore intrinsically and historically valuable objects to a condition in which they can be exhibited and studied, and to arrest further deterioration of objects in danger of irretrievable damage. The Museum has over 145,000 aesthetically and historically important prints, drawings and photographic images. Surveys have indicated that over 90 percent of these materials need conservation treatment to make them safe for use by researchers, for exhibitions, and for their long-term preservation. This task is being planned as a long-range, phased project in which items identified as the most valuable and in greatest need will be treated systematically. For FY 1985, \$31,000 is required to hire an assistant paper conservator and a technician to carry out this work. In addition, the physical care of the extensive and diverse collections now being assembled under the Archives Center are beyond the capacity of the conservation staff. The Museum requests \$18,000 for an archival conservator to provide specialized guidance in the storage, handling and treatment of fragile collections such as the Warshaw Collection, the N. W. Ayers Company card collection, and the Clark Collection on the history of radio.

The second area of collections management for which the Museum requests an increase is that of improving the security and physical conditions of stored collections on the Mall. Collections inventory efforts have brought to light a number of instances in which collections are stored insecurely or where overcrowding and exposure to dust and light are contributing to the gradual deterioration of the objects. As a result, the Museum has developed a plan for adding or replacing open shelving and old, worn or unlockable cabinets with standardized equipment. The move of large numbers of objects to the Museum Support Center, to begin in 1985, will ease the overcrowded condition of storage areas and will provide an opportunity to reorganize and rehouse the collections that remain on the Mall, to ameliorate unsafe and unsecure conditions, and to make them more accessible for work and study by staff and

scholars. The total cost of the storage equipment needed is estimated to be \$260,000. The Museum requests an increase of \$25,000 to augment base resources of \$10,000 applied to accelerate initial procurement of equipment to correct the most serious deficiencies. Additional staff also is required to address some of the special security and storage needs of the Museum's valuable collections of stamps, coins and paper money. Funds (\$13,000) are requested to hire a museum technician to serve as vault custodian for the National Philatelic Collections which will improve greatly security for these highly valuable, easily portable collections. A museum technician (\$13,000) also is needed to assist in the storing, rearranging, labeling, cleaning, and restoring of the National Numismatic Collections in order to more efficiently account for and inventory these objects.

Data Base Administrator (\$35,000) - The National Museum of American History has, over the past several years, applied computer technology to the major program areas of the Museum: collections management, registrarial functions, research and publications, exhibitions and support services. A computer services center developed in FY 1975 serves as liaison with the Institution's Office of Information Resource Management and provides further assistance to Museum users of automated systems. Recent expansion of the collections-related computer data base (from approximately 45,000 automated records in FY 1978 to over 700,000 records by the end of FY 1983) created a tremendous increase in the use of computer time and underscored the benefits to be gained by further application of automation in the fields of collections management and research.

The reconciliation of existing curatorial and registration records with the inventory data developed during the shelf inventory will depend heavily on the management and revision of the information contained in the system data base. Due to the expansion of both the size of the automated files and the data management needs to support collections management, research, exhibition development and public inquiry activities, data base administration has increased dramatically. In order to continue the refinement and coordination of these automated systems, funding of a data base administrator (\$35,000) is requested.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from a variety of sources including the Museum's share of sales in the museum shop, cafeteria and bookstore, royalties, and interest earnings. The Institution, through Fluid Research, Collections Acquisition, Scholarly Studies and Educational Outreach Programs provide financial support as well (expenditures of \$152,000 in FY 1983). All of these funds have helped to support NMAH programs in the areas of affirmative action, scholarly publications, acquisitions and research. Of special note was the receipt of funds to support the development of a journal on Afro-American issues and research funds to begin plans for an Afro-American migration exhibit. Trust funds also support special events, including the Museum's 20th anniversary celebration taking place in January 1984, and weekend musical events. Funding for the position of the Museum director also is provided from these sources.

Restricted Funds - Individual or corporate gifts and foundation grants are the principal sources of income under these funds. In FY 1983, a number of exhibitions and special projects received support. Of particular note are: a contribution from Dr. Hans Syz to publish a ceramic collection catalogue; a gift from the Edison Electric Institute to purchase a ca. 1760 portable electrostatic globe machine; and a gift from Sears, Roebuck and Company to help complete work on the Flag Hall; funds from the American Society of Anesthesiologists were used to design and produce an exhibition on the medicinal and social consequences of pain (expenditures of \$137,000 in FY 1983 and estimated expenditures of \$10,000 in FY 1984 and in FY 1985). In

FY 1984, the Morris and Gwendolyn Cafritz Foundation awarded the Museum a \$165,000 construction grant to relocate the Alexander Calder stabile from the west side of the Museum to the corner of 14th Street and Constitution Avenue and to put in its place an 1878 bandstand from Jacksonville, Illinois. In FY 1983, the 20th Century-Fox Film Corporation awarded the Museum a \$50,000 gift and other support for an exhibition and related events concerning the television show M*A*S*H. This exhibit includes two sets from the show, the Operating Room and the Swamp, as well as artifacts, photographs, costumes and other material. The American Society of Civil Engineers and Citibank Corporation were major supporters of an exhibition on the Brooklyn Bridge. In FY 1983, the majority of funds received from the Ford Foundation for support of the Museum's Affirmative Action program were used to establish several administrative and research positions that provided minorities with first-hand experience in museum programs (expenditures of \$116,000 in FY 1983 and estimated expenditures of \$18,000 in FY 1984). Funding is being sought for the audio-visual, tour and performance related portions of the exhibition "Life in America" (estimated expenditures of \$170,000 in FY 1984 and \$184,000 in FY 1985). In FY 1985, funding will be sought for support of the exhibit "Field to Factory: Afro-American Migration 1915-1940" (estimated expenditures of \$125,000 in FY 1985). The Museum also will seek funds in FY 1985 to revitalize the "Ceremonial Court" (estimated expenditures of \$130,000 in FY 1985).

NATIONAL MUSEUM OF AMERICAN ART

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General FTP**	Amount	Special Purpose FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	114	4,186	-	26	1	667	-	104	-	-2
FY 1984 Base /1	118	4,491	-	38	1	129	-	428	-	-
FY 1985 Estimate	118	4,648	-	38	1	203	-	214	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>118</u>	<u>0</u>	<u>0</u>	<u>118</u>
11 Personnel Compensation...	3,040	71	23	3,134
12 Personnel Benefits.....	299	8	2	309
21 Travel.....	50	2	-	52
22 Trans. of Things.....	71	3	-	74
23 Rent, Comm. & Utilities..	36	1	-	37
24 Printing & Reproduction..	100	5	-	105
25 Other Services.....	316	14	-	330
26 Supplies & Materials.....	257	10	-	267
31 Equipment.....	72	3	-	75
Collection Acquisitions..	<u>250</u>	<u>15</u>	<u>-</u>	<u>265</u>
Total	<u>4,491</u>	<u>132</u>	<u>25</u>	<u>4,648</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Museum of American Art (NMAA), this country's oldest national art collection, is devoted to the acquisition, preservation, study, and exhibition of American painting, sculpture, graphic art, and crafts. Established in 1829, the collection since then has borne a number of successive names and from 1937 to 1980 was designated the National Collection of Fine Arts. The change to the present name in 1980 reflects the Museum's principal focus on American art. The Renwick Gallery, established in a separate building in 1972 under the purview of NMAA, displays American crafts, decorative arts, and designs, as well as exhibitions from abroad. Also, the Barney Studio House, with a part-time curator paid from an

endowment, is maintained by NMAA as a period home open for tours and for special interpretative programs. For FY 1985, an increase of \$25,000 is requested to hire a data technician to edit research information and create standardized entries for the artists' names, subject headings and titles listed for over 500,000 works of art in the Museum's computerized data base. No new position is being requested as one will be reallocated from current workyear resources. Necessary pay of \$79,000 is required for existing staff and an amount of \$53,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - NMAA's collection seeks to represent American art from its beginnings to the present and serves as the basis for active programs of exhibition, research and public education. NMAA's publications have become basic texts for reassessment of the art of America's past, and its exhibitions have brought new appreciation for American artists of both the past and present. The Museum has maintained close contact with art centers in this country and abroad and has encouraged the study of American art through its fellowship and intern programs. Continuing emphasis will be placed on extending nationally the availability of the Museum's resources by increasing research and scholarly publications, making the collection more accessible outside Washington, D.C., circulating more exhibitions organized by NMAA, and arranging for the publication of the Museum's research indices in American art.

The recently completed Smithsonian-wide inventory confirms that there are 30,418 works of art in NMAA's permanent collection as of June 30, 1983, a number which continues to grow at a rate of approximately 1,000 new works each year. Two directions in collecting recently have been given new emphasis. With a transfer of over 1,300 photographs from the National Endowment for the Arts, NMAA now has a major collection of works by noted American photographers of the 1960s and 1970s, and the Museum's attention to photography will increase during the coming years. With gifts both by individual craftsmen and donors, NMAA's collection of contemporary American crafts has been substantially augmented and will be placed on permanent display at the Renwick in the near future.

Exhibitions - The resources of NMAA's permanent collection will be shared through temporary exhibitions drawn from it, and through a comprehensive reinstallation of the Museum's galleries which is currently under way. That reinstallation will result in a chronological and more coherent arrangement of the collection, enabling visitors easily to find works of particular interest and to grasp the full development of American art. Recent temporary exhibitions of holdings from the permanent collection have included the paintings of noted black artist William H. Johnson (1901-1970), the lithographs of the early modernist Louis Lozowick (1892-1973), and an exhibition of the work of the sculptor Paulanship (1885-1966). An exhibition of American photographers of the 1960s and 1970s drawn primarily from NMAA's holdings is planned for the future.

One noteworthy project currently being explored for FY 1985 is the organization of a touring exhibition of 100 masterworks or "treasures" from the collection of NMAA--including paintings, sculptures, and graphic arts--which will visit the Seattle Art Museum, the Minneapolis Institute of Arts, the Amon Carter Museum of Western Art in Fort Worth, and the High Museum of Art in Atlanta. The tour, to be supported from the private sector, will be accompanied by a major book on Treasures of the National Museum of American Art, which also will be marketed nationally. In another publication, released during 1983, the Museum's collection was made available for the first time to libraries, institutions and scholars in a Descriptive Catalogue of Painting and Sculpture in the National Museum of American Art published by G. K. Hall & Co. of Boston. Another project under way will offer the Museum's significant non-American art works on long-term loan to selected university galleries and museums around the country. Many of these works were acquired by the Museum (prior to its name change

reflecting its principal focus on American art) as restricted gifts, and this program will ensure their continued exhibition for study and appreciation by the public.

In its exhibition program, NMAA will continue its emphasis on reexamining works by American artists who have been neglected in the past and on exploring regional aspects of American art. The Renwick Gallery will provide opportunities for exhibition of works by American craftsmen and for the presentation of new ideas, approaches, and techniques in the crafts media. Approximately 20 temporary exhibitions--not including rearrangement of the permanent collection galleries--open at the NMAA and the Renwick each year. With each major exhibition organized by NMAA, a substantial catalogue or publication is produced, and when the exhibitions are of important national or regional interest, they are offered on tour to other museums. During FY 1983, the Museum circulated six such exhibitions to 13 museums in the United States. Plans are in progress to expand this valuable outreach program.

During FY 1984 and FY 1985, the Renwick Gallery exhibitions will feature the work of furniture and industrial-designer Russel Wright; glassmaker Harvey Littleton; art nouveau designer Edward Colonna; and weaver Anni Albers. Other exhibitions, such as "Chicago Craftsmen Furniture" and "The Pottery and Crafts of Newcomb College," will review important crafts movements in the United States from an historical perspective. As a national museum, NMAA is in a unique position to study regional aspects of American art. In FY 1984 and FY 1985, the following exhibitions will deal with or treat regional themes: "Provincetown Painters: A Woodcut Tradition"; "The Capital Image: Painters in Washington, 1800-1915"; "Sawtooths and Other Ranges of Imagination: Contemporary Art from Idaho"; and "The Art of Taos and Santa Fe: Context and Meaning."

Research - NMAA's resources comprise not only works of art but also invaluable research and reference materials utilized by scholars throughout the country. These resources include three unique art indices: the Inventory of American Paintings Executed Before 1914, now has over 230,000 items catalogued by computer; the Smithsonian Art Index lists approximately 200,000 items of art housed in the Institution's nonart museums; and the Index of Pre-1877 American Art Exhibition Catalogues, comprises some 130,000 computer entries disclosing artists' activities, regional characteristics, patronage preference, and works which have been lost. Another unique research holding is the Peter A. Juley Collection of 127,000 negatives taken over an 80-year period by the noted New York photographer of many works by American artists; completion of the ongoing project to convert the deteriorating nitrate film in the collection to a stable film now has been assured through the generosity of private donors. NMAA has, for general reference and research purposes, 170,000 slides and photographs which are on a computerized file and over 75,000 negatives and slides which are being entered into the computer data bank. The library, with 45,000 volumes, serves NMAA, the National Portrait Gallery, and the Archives of American Art, as well as local and visiting scholars and students, and other Smithsonian bureaus. During FY 1983, the library answered an estimated 3,900 reference questions received by mail, telephone and in person.

Education and Public Orientation - In cooperation with the National Portrait Gallery (NPG), NMAA has spearheaded the promotion of "Gallery Place," a name adopted from the adjacent Metrorail stop. Long isolated from the tourist traffic enjoyed by the museums on the Mall, NMAA and NPG have taken advantage of their location next to the subway and just one block south from the newly-opened Washington Convention Center to publicize their unparalleled resources, services, and collections to a national audience. The publication of a free, informational brochure on the museums at Gallery Place for distribution to convention groups, the production of billboards and banners outside the museum advertising the two museums as "the Smithsonian Institution at Gallery Place," and the design of public-service Metro signs and

backlighted posters are all part of an aggressive campaign to bring the museums to the attention of a broader new public.

EXPLANATION OF PROGRAM INCREASE:

Data technician (\$25,000) - For FY 1985, an increase of \$25,000 is requested to fund a data technician to edit computer research and create standardized entries for artists' names, subject headings, and titles of works of art in the Museum's several art indices. No new position is being requested as one will be reallocated from current workyear resources.

NMAA has a distinguished history in the development of unique data bases for research in the history of art. For example, NMAA's "Inventory of American Paintings Executed Before 1914," initiated in 1976 as a bicentennial project, is the only existing "census" of such paintings in both public and private collections throughout the United States. The combined data records for this and other projects now contain information on over 500,000 works of art. Although NMAA has pioneered the development of these unique repositories, it has lacked adequate resources to make the information easily and widely accessible to the public and scholarly communities.

In coordination with the Office of Information Resource Management's Institution-wide automation plans, NMAA's data bases in FY 1985 will begin to be placed on a new system which will ultimately allow researchers and the public to retrieve information on-line from computer terminals within the Institution, as well as from remote terminals strategically located elsewhere across the country in museums, universities and libraries. If this vast amount of automated information is to be retrieved effectively, it is essential that entry standards be developed and imposed so that vital and consistent cross-referencing is possible. One major necessity for NMAA's art data base is an "authority format" for artists' names and bibliographic information.

The funds for a data technician in FY 1985 will permit the bibliographic information in the data bases to be identified, verified, and standardized. Based on a record count of 500,000 entries, this intensive editorial work is expected to require at least five years to complete. The initial five-year period will allow the Museum to prepare its six separate art data bases for a nation-wide network and to develop a base of information on American artists which will become a national reference and research standard.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from many different sources, including the Museum's share of sales in the restaurant and museum shop; allotments for special purposes; royalties from publications; sales of slides and photographs; honoraria received by staff while on official duty; participation fees from museums to which NMAA exhibitions are lent; and tuition reimbursement from universities for NMAA interns. Funds are used for the support of publications, exhibitions and public programs; curatorial research and travel; stipends for summer interns; purchase of photographic supplies; travel costs for meetings of the NMAA Commission; repairs to Barney Studio House; and special events for the opening of new exhibitions. Starting in FY 1984, through an agreement with the J. Paul Getty Center for the History of Art and the Humanities, Special Purpose funds will be used to continue the preservation project of the Juley Collection until its anticipated completion in FY 1989 (estimated expenditures of \$50,000 each year). Under the Institution's Collections Acquisition, Scholarly Studies, and Educational Outreach Program, NMAA in FY 1983 received \$450,000 for the purchase of "Subsiding of the Waters of the Deluge," an important 1829 landscape by Thomas Cole, the father of the Hudson River School.

Restricted Funds - These are contributed for specific purposes in the form of gifts and grants from individuals, foundations and corporations. Funds are available to support curatorial and programmatic activities of the Barney Studio House (expenditures of approximately \$35,000 annually). The balance of the Samuel H. Kress Foundation grant (\$70,000) will be spent in FY 1984 for the preservation of the Peter A. Juley Collection of historic negatives. From the Robert Tyler Davis bequest, prints and drawings will continue to be purchased for the permanent collection (estimated expenditures of \$10,000 annually). Other significant uses of restricted grants and gifts are for the support of publications--such as The Graphic Art of Mary Cassatt and Sculpture and the Federal Triangle--and for the support of programs, videotapes, and other activities of specific exhibitions, including "The Capital Image: Painters in Washington"; "Contemporary Art from Idaho"; "Retrospective of the Work of Anni Albers"; "LIFE: The Second Decade"; and a touring exhibition of "Treasures of the National Museum of American Art (estimated expenditures of \$94,000 in FY 1984). In FY 1985, funds will be used to refurbish the Doris M. Magowan Portrait Miniature Gallery and for portrait miniature acquisitions (estimated expenditures of \$36,000). If anticipated gifts and foundation grants are received, total estimated expenditures of \$182,000 in FY 1984 and \$110,000 in FY 1985 will be used for a variety of public programs in support of exhibitions and other museum outreach activities.

NATIONAL PORTRAIT GALLERY

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTP**		FTP**	
			FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	83	3,085	-	45	-	118	3	164	-	-
FY 1984 Base /1	82	3,256	-	58	-	87	-	201	-	-
FY 1985 Estimate	82	3,367	-	18	-	50	-	146	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>82</u>	<u>0</u>	<u>0</u>	<u>82</u>
11 Personnel Compensation...	2,111	61	-	2,172
12 Personnel Benefits.....	212	7	-	219
21 Travel.....	21	-	-	21
22 Trans. of Things.....	111	5	-	116
23 Rent, Comm. & Utilities..	18	1	-	19
24 Printing & Reproduction..	60	3	-	63
25 Other Services.....	160	8	-	168
26 Supplies & Materials.....	162	7	-	169
31 Equipment.....	54	3	-	57
Collections Acquisition..	<u>347</u>	<u>16</u>	<u>-</u>	<u>363</u>
Total	<u>3,256</u>	<u>111</u>	<u>0</u>	<u>3,367</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Portrait Gallery (NPG) was established by Act of Congress in 1962 (20 U.S.C. 75b) as a museum for the exhibition and study of portraits depicting men and women who have made significant contributions to the history, development and culture of the people of the United States. No program increase is requested for FY 1985. Necessary pay of \$68,000 is required for existing staff and an amount of \$43,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The National Portrait Gallery's mission is the study and presentation of American history through the lives of men and women who have contributed significantly to its development, as depicted in a carefully selected collection of portraiture. The arts of portraiture and biography are the means through which the Gallery offers a continuing exploration of the American people's heritage and accomplishments. The Gallery collects, studies, preserves, and exhibits portraits in all media as both historical and artistic documents.

The Gallery, opened in 1968, has as its most fundamental activity the building of a collection which is both artistically worthy of its mission and historically representative of the sources and qualities of American culture. Building a collection includes continuing responsibility for thorough research and careful conservation of the objects acquired. Research results are published by curators and historians in articles, monographs and exhibition catalogues. The collections are exhibited continuously in a series of galleries arranged both chronologically and thematically and are cared for by professional conservators on the Gallery's staff. The Gallery also organizes a schedule of popular and scholarly temporary exhibitions on a wide variety of subjects. Each is accompanied by an illustrated catalogue and usually incorporates materials borrowed from museums throughout the country and abroad.

Collections - In FY 1983, the Gallery purchased 72 portraits with appropriated funds and obtained 284 others by gift or transfer. Among the works recommended at the National Portrait Gallery Commission meetings in FY 1983 that were purchased with Federal funds are: portraits of John Frazee, the first native-born professional sculptor (a self-portrait in plaster), "Washington Irving and His Literary Friends" (painted by Christian Schussele), Van Wyck Brooks, American author and critic, Stuart Davis (a self-portrait drawing), Edith Wharton, Eleanor Roosevelt, and Russell Sage, as well as photographs by Paul Strand of Georgia O'Keeffe, Marsden Hartley, Gaston Lachaise, John Marin, and Alfred Stieglitz. Also recommended was a large collection of graphic works pertaining to Abraham Lincoln, woodblock prints by Antonio Frasconi of musicians Pablo Casals, Duke Ellington, Charles Mingus, and Woody Guthrie, and several other prints of importance to the collections.

A number of important gifts were made to the National Portrait Gallery's permanent collection in FY 1983. Among them was an important life portrait of James B. Duke, founder of American Tobacco Company, Duke Power, and Duke University, by John DaCosta, which was the gift of Mr. T. Bragg McLeod of North Carolina. Katherine Caldwell gave a portrait of the artist Albert Pinkham Ryder by his only known pupil, Louise Fitzpatrick. Mrs. Herbert C. Hoover, widow of the late President, left to the Gallery L. C. Carmontelle's life portrait of Benjamin Franklin. Former Ambassador Clare Boothe Luce donated busts of herself and her late husband Henry Luce, publisher of TIME magazine. Barry Bingham, Sr., donated a drawing of Archibald MacLeish by Ellen Barry. The Violet Oakley Foundation donated 18 portrait drawings of well-known Americans.

Exhibitions - The Gallery's exhibition program remains a central attraction for the general public, and, with its diverse approaches to history and art, has attracted much scholarly attention as well. At the beginning of FY 1983, the major exhibition "Charles Willson Peale and His World" opened at the Gallery. The exhibition, which was well attended and acclaimed by the public and critics, covered the entire range of Peale's work as artist, naturalist, and patriot and was accompanied by an impressive catalogue and introductory slide show. In the spring of 1983, the Gallery brought to Washington a traveling exhibition from the Museum of Modern Art, "Hollywood Portrait Photographers 1921-1941." This star-studded display of the virtuosity of the film studios' publicity portraitists created even more of a stir than anticipated; in one weekend alone more than 6,000 visitors to the Gallery set a new attendance record.

In June of 1983, a bicentennial retrospective of the work of Thomas Sully (1783-1872) opened. Thomas Sully enjoyed one of the longest active careers of any 19th-century American painter; he painted professionally from at least 1801 to early 1872. The Gallery's exhibition was the largest major showing of his work since 1922.

Smaller exhibitions in FY 1983 included, "Portraits from the New Deal"; "Blessed Are the Peacemakers" (portraits of the American, British, French, and Spanish "peacemakers" who were involved in the signing of the Treaty of Paris); "James Barton Longacre," chief engraver of the U.S. Mint in 1844; "The Eight," paintings and photographs of an independent group of eight early 20th-century American artists; along with exhibitions on Gertrude Vanderbilt Whitney (a shared venture with the Archives of American Art) and Washington Irving.

The Gallery received substantial private support for the exhibition, scheduled for FY 1984, of the great portraits from Versailles. In November 1983, the National Portrait Gallery presented "Masterpieces from Versailles: Three Centuries of French Portraiture," a special loan exhibition of paintings from the Museum of the Chateau of Versailles. This loan of treasures from France's national portrait collection provided an opportunity for Americans to see 'several centuries' work from a nation that has produced some of the finest portrait painting in the world. The group of paintings generously made available to the National Portrait Gallery was made up in part by works originally commissioned for the Royal Collections and in part from more recent additions to the French patrimony. The exhibition provided a glimpse of painted portraiture in France from the reign of Louis XIII (1610-1643) to the final years of the monarchy under Emperor Napoleon III (1851-1871). The exhibition and its accompanying catalogue was made possible in part by a grant which supplemented expenditures from the NPG appropriation for exhibitions.

All the surviving work of Robert Cornelius, America's first portrait photographer, was assembled in an exhibition that opened in October 1983. The exhibition broke new ground in the history of photography by providing the occasion to submit many of these very early daguerreotypes (dating from 1840-1843) for metallurgical analysis. The results of this study have been published in a catalogue to the exhibition, along with extended essays on the beginnings of portrait photography in America and on Cornelius' life work.

Other major exhibition plans for FY 1984 include "Artists by Themselves: Artists' Portraits from the National Academy of Design," 80 portraits submitted by artists seeking membership in the National Academy of Design; a retrospective exhibition jointly presented by the NPG & National Museum of American Art of the work of Erastus Salisbury Field, the first comprehensive exhibition of this American folk artist and student of Samuel F. B. Morse, known especially for his strong portraits of sitters from the Connecticut Valley, his genre paintings and paintings of historical events; and "'Adventurous Pursuits': Americans and the China Trade, 1784-1844," a celebration of the 200th anniversary of the opening of trade between America and China.

Also planned for FY 1984 are a number of smaller exhibitions, including "TIME and the Presidency," original art work from TIME magazine covers examines the portrayal of presidents from John F. Kennedy to Ronald Reagan in painting, sculpture, photographs and caricatures; "'O, Write My Name': American Portraits, Harlem Heroes," photographs of Black Americans by Carl Van Vechten; "Arnold Genthe: The Celebrity Portraits," approximately 70 original photographs of such celebrities as Greta Garbo, Sinclair Lewis, Edna St. Vincent Millay, and Sarah Bernhardt by photographer Arnold Genthe from the collection of the Library of Congress; "Musicians in Caricature," an exhibition of original caricature drawings from the 1920s through the 1950s showing major figures in modern American music--jazz, musical theatre and popular songs--by such artists as Aline Fruhauf, Alfred Bendiner, and Olga Koussevitsky, among others; and "Booth Tarkington," a

small exhibition recalling the literary accomplishments of the Pulitzer Prize-winning author of Penrod and The Magnificent Ambersons.

Exhibitions being planned for FY 1985 and beyond include shows on the artists Miguel Covarrubias, Gaston Lachaise, James Earl, Chester Harding, William Edward West, John Frazee, and Henry Inman, as well as exhibitions on American radio and television and Indian peace medals. Research is going forward on "The Black Presence in America," continuing the effort begun in 1973 with "The Black Presence in the Era of the American Revolution"; this now has been rescheduled for FY 1986. As usual, major publications will accompany these exhibitions.

Publications - The Gallery has several publications projects under way in addition to those related to its exhibition program. Work continues on the biennial update of the Illustrated Checklist of the Permanent Collection, most recently published in 1982, and on the multi-year project for a seven- or eight-volume letterpress edition of The Collected Papers of Charles Willson Peale and His Family, to be published by Yale University Press. (Volume I appeared in FY 1984.) Nonappropriated Trust funds are supporting the publication in 1984 at the University Press of Virginia of the proceedings of the American Print Conference held at the National Portrait Gallery on American Portrait Prints. The Gallery expects to produce a definitive catalogue of The Portrait Engravings of C. B. J. F. de Saint-Memin in FY 1984 or FY 1985.

Education - The National Portrait Gallery's public education program includes careful preparation of labels for each portrait, docent-led tours seven days a week, and an innovative series of programs designed for school groups, senior citizens, the disabled, and other specialized audiences. The Education Department also offers special performances and films throughout the year for general audiences, including the highly popular "Portraits in Motion" series of free, public dramatic programs on biographical themes.

The Gallery also is experimenting with audio-visual media in its educational programs and exhibitions. A multi-projector slide show was prepared as an orientation to the Peale exhibition, and a videocassette of contemporary newsreels was part of the Franklin D. Roosevelt exhibition. Home Box Office produced a 90-minute program based on "Champions of American Sport," and made available to the Gallery extensive filmed interviews with the athletes for the collections.

In FY 1984, the National Portrait Gallery will continue to add listings to The Catalog of American Portraits, a large and growing source of information on portraiture for scholars of American history, art history and biography. A national portrait survey has been supported in part by a grant from the Andrew W. Mellon Foundation, as well as the Ambrose Monell Foundation, Thomas Mellon Evans, the Lily Foundation, and numerous other private benefactors in the states where surveys have been in progress. Field researchers in FY 1983 examined collections in Ohio, Indiana, Michigan, Illinois, California, and Arizona, and the project yielded approximately 5,448 records to be integrated with the existing data base of over 34,366 records. Computer-generated indexes of collections already canvassed have been placed with over 232 individual institutions. If private funding continues, the states to be surveyed in FY 1984 will be Washington, Oregon, Idaho, Nevada, New Mexico, Texas, Oklahoma, Missouri, and Arkansas. Including records not yet entered in the machine-readable files, more than 65,000 portraits so far have been located by The Catalog of American Portraits. Work in the next five years will be focused on the completion of the survey and on entering all of the data into the computer. This is a priority fund-raising target for the immediate future.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from several sources including: the National Portrait Gallery's share of sales in the restaurant and museum shop; sales of photographic reproductions of portraits in the collection; staff honoraria; participation fees from museums to which NPG exhibitions are loaned; and ticket proceeds from programs such as the "Children of Pride" series, presented in November 1982. These funds are used to help defray the expenses of public lectures, symposia and special events (some of which are coordinated with the opening of exhibitions); associated costs of loan exhibition development and management; and for research expenses of staff who are preparing special publications or lectures. Funds provided by allotment will be used to provide partial support for The Catalog of American Portraits' nationwide survey program. In FY 1983, funds provided by the the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program helped produce the Institution's "Children of Pride: A True Story of Georgia and the Civil War," a four-part series about the decades preceding the Civil War, the Civil War, and Reconstruction, and also supported a series of programs for senior citizens, a tri-museum (NPG, the Anacostia Neighborhood Museum, and the National Museum of American Art) family weekend program, and programs for junior high and high schools.

Restricted Funds - These funds are provided for specific purposes in the form of gifts and grants from individuals, foundations, organizations or corporations. The Catalog of American Portraits is currently in the fifth year of a seven-year nationwide survey of American portraits. The generous grant of funds (\$325,000) from the Andrew W. Mellon Foundation in 1977 made possible the implementation and continued operation of this extremely important project.

Gifts provided by individual donors in FY 1983 were used to support the exhibition "Charles Willson Peale and His World" which opened in October 1982, and to purchase several works of art. The Monica and Hermen Greenberg Foundation provided support for the living self-portrait, "An Evening with George Abbott." Funds for scientific analysis of the Robert Cornelius daguerreotypes were provided by the Barra Foundation. Support for the "Masterpieces of Versailles" exhibition came from Guerlain, Inc. Funds provided by the Swann Foundation for Caricature and Cartoon will be used for an exhibition featuring caricatures of famous personalities, drawn in the 1930s and 1940s by Miguel Covarrubias, the Mexican-born caricaturist, who is renowned for his work in Vanity Fair magazine. Anticipated gifts and foundation grants of \$65,000 in FY 1984 and \$70,000 in FY 1985 will be used to support special activities, programs and portrait acquisitions.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	74	2,705	-	9	-	62	-	69	-	-
FY 1984 Base /1	77	3,013	-	12	-	64	-	622	-	-
FY 1985 Estimate	77	3,109	-	12	-	64	-	35	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>77</u>	<u>0</u>	<u>0</u>	<u>77</u>
11 Personnel Compensation...	1,933	49	-	1,982
12 Personnel Benefits.....	191	5	-	196
21 Travel.....	28	2	-	30
22 Trans. of Things.....	197	5	-	202
23 Rent, Comm. & Utilities..	58	2	-	60
24 Printing & Reproduction..	85	5	-	90
25 Other Services.....	146	5	-	151
26 Supplies & Materials.....	158	10	-	168
31 Equipment.....	71	3	-	74
Collections Acquisition..	140	10	-	150
41 Grants.....	<u>6</u>	<u>-</u>	<u>-</u>	<u>6</u>
Total	<u>3,013</u>	<u>96</u>	<u>0</u>	<u>3,109</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - Established by act of Congress (P.L. 89-788, November 7, 1966), the Hirshhorn Museum and Sculpture Garden (HMSG) conducts an active program of public exhibitions, drawing from its own and other collections. The Museum prepares catalogues relating to its exhibitions and collections, and conducts extensive educational activities including film programs, lectures, concerts, publications, and tours. No program increase is requested for FY 1985. Necessary pay of \$54,000 is required for existing staff and an amount of \$42,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - In October 1983, the Hirshhorn Museum and Sculpture Garden celebrated its ninth anniversary. As one of the major museums of modern art in the United States, the Museum operates an active program of exhibitions, research and acquisitions, along with related programs of lectures, films, concerts and educational activities involving audiences of all ages.

Exhibitions - Major exhibitions shown in FY 1983 at the Hirshhorn were: "David Smith: Painter, Sculptor, Draftsman"; "From the Life of the Artist: A Documentary View of David Smith" (in collaboration with the Archives of American Art); "Directions, 1983" (a biennial presentation of recent art developments); "Friedel Dzubas"; and "Museum Purchases: 1974-1983." Smaller exhibitions include: "Art of Pakistan"; "The Eight and the Independent Tradition in American Art"; "Joseph Stella"; and continuing exhibitions of works on paper from the Museum's collection. Major exhibitions scheduled for FY 1984 are: "Dreams or Nightmares: Utopian Visions in Modern Art"; "Drawings 1974-1984"; "Artistic Collaborations in the Twentieth Century"; and "German Expressionist Sculpture" (organized by the Los Angeles County Museum of Art). Major exhibitions scheduled in FY 1985 include: "The New Content: Painting and Sculpture 1974-1984" (an exhibition celebrating the Hirshhorn's tenth anniversary); "Jim Dine: 1964-1984" (organized by the Walker Art Center); "Representation Abroad: Diversity"; and "A Selection from the Bequest of Joseph H. Hirshhorn."

As the nature of the permanent collection of HMSG has become more widely known, requests for loans from the collection have increased. In FY 1983, 344 objects were lent to 64 institutions. Funds provided in FY 1984 are being used to support costs for the extended loan program. This program not only makes available to institutions works of art from its main collection, but items from the bequest of Joseph Hirshhorn will be made available as well. During FY 1984, the Hirshhorn Museum expects to receive the major portion of the bequeathed collection, which will require extensive collections preparation, conservation analysis, mounting, photography, and cataloguing. As part of this loan program, the 43 paintings contained in "The Eight and the Independent Tradition in American Art" were lent to the Terra Museum of American Art, Evanston, Illinois. In FY 1984, an exhibition consisting of 21 paintings was sent to Duke University, Durham, North Carolina. As an adjunct to the exhibition "Paintings from the Fifties," Duke University sponsored a month of symposia and lectures. The Museum's works by Frank Stella will be shown at the Columbus Museum of Art in FY 1984 and selected works by Oscar Bluemner will be shown at the same museum in FY 1985. An exhibition similar to the one that went to Duke will go to the Oklahoma Museum of Art in FY 1985. Loans to foreign exhibitors included six paintings to the Neue Gesellschaft für bildende Kunst, Berlin, West Germany; five sculptures and two drawings by Alexander Calder to the city of Turin, Italy; and two paintings by Willem de Kooning to the Stedelijk Museum, Amsterdam, The Netherlands. Major sculpture loans are scheduled to go to Japan in FY 1984. In addition, two exhibitions originated by HMSG were toured by the Smithsonian Institution Traveling Exhibition Service, and two additional exhibitions will begin to travel in FY 1984.

Education and Public Orientation - To increase visitor appreciation and understanding of specific exhibitions and of modern art in general, the Museum provides visitors with a variety of instructional materials, including explanatory wall labels and brochures. The latter range from a single page to illustrated mini-catalogues and are distributed free of charge to the public. In a small theater in the third floor galleries of the Museum, a slide lecture program, the second in a series, has been installed called "Elements of Art: Color." This program is run three times an hour for the benefit of visitors. The slide presentation is enhanced by the original works of art discussed in the slide program, which are installed in an adjacent gallery.

The Museum also conducts film series including a lunchtime series about artists and their work, an evening series of films by artist filmmakers, and Saturday films for young people. Other events held in the auditorium are concerts by the 20th Century Consort and a series of lectures including artists, historians and critics such as Ida Appleborg, Kendall Buster, Mary Jones, Pierre Picot, Anita Thatcher, Grace Glueck, Mary Boone, Carter Radcliffe, Friedel Dzubas, and Charles Millard. Symposia also were organized around the "David Smith" exhibition and included Edward Fry, Clement Greenberg, Rosalind Kraus and Karen Witkin, and "The Eight and the Independent Tradition in American Art" exhibition with Marc Pachter and Bernard Perlman.

Collections - The legislation establishing the Hirshhorn Museum and Sculpture Garden describes its function as a "museum in Washington, D.C. where modern art could be exhibited and studied...(which)...would enrich the culture of the Nation." In order to carry out this mandate within the definition of the enabling legislation, it is essential that the Hirshhorn Museum remain a museum of modern art, keeping abreast of current developments in the visual arts. The nature of modern art, in its international aspects, is one of constant variation and change. Like everything else in contemporary society, cultural changes take place more quickly and in greater scope than in the past. In addition, artistic output of quality has multiplied. To present a truly accurate account of aesthetic developments on an international level, an active acquisition program is essential. In FY 1983, the Museum acquired 25 works of art of which nine were purchased with appropriated funds. Major purchases in FY 1983 from appropriated funds were: "Le Coq (Rooster/Winter Landscape)" by Raymond Duchamp Villon; and "Bacchanale and Phantom Horse" by Jan Muller. In FY 1984, major purchases include: "The Square in June" by Avigdor Arikha, "Mother and Child" by Jules Dalou and "Cheval Ecruche" by Theodore Gericault.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided from several sources including the Museum's share of sales in the museum shop and plaza cafe, and from other receipts such as fountain coins. In FY 1983, allotments supported an outreach program to schools in the Washington, D.C. metropolitan area, exhibition preview receptions and travel expenses of the Museum's Board of Trustees. Also in FY 1983, the receipts from the fountain fund were used to purchase a painting, "Interface V" by Jacob Kainen. Special Purpose funds were used to purchase stationary, a small catalogue and expenses of the Board of Trustees.

Restricted Funds - Funds were used in FY 1983 to purchase the works of art: "The Art Lovers, D.C." by Leslie Kuter, and "Pyramid for Martin Hurson" by Ann McCoy. Limited research travel for the curatorial staff in connection with exhibitions also was financed. The Museum is seeking outside support from various sources to help acquire costly and important major works for the permanent collection (estimated expenditures of \$600,000 in FY 1984).

CENTER FOR ASIAN ART

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General FTP**	Amount	Special Purpose FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	28	913	1	52	-	52	23	1,319	-	-
FY 1984 Base /1	30	1,098	1	56	-	5	22	1,465	-	-
FY 1985 Estimate	30	1,136	1	60	-	3	22	1,515	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>30</u>	<u>0</u>	<u>0</u>	<u>30</u>
11 Personnel Compensation...	744	24	-	768
12 Personnel Benefits.....	79	3	-	82
24 Printing & Reproduction..	62	3	-	65
25 Other Services.....	33	2	-	35
26 Supplies & Materials.....	96	5	-	101
31 Equipment.....	<u>84</u>	<u>1</u>	<u>-</u>	<u>85</u>
Total	<u>1,098</u>	<u>38</u>	<u>0</u>	<u>1,136</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Center for Asian Art is comprised of the Freer Gallery of Art, established May 5, 1906, and the Arthur M. Sackler Gallery, established July 28, 1982. The Freer Gallery of Art has a continuing program to acquire works of Oriental art of the highest quality and to conserve, study and display these objects as keys to understanding the civilizations that produced them. The Arthur M. Sackler Gallery will be devoted to the acquisition, study, interpretation and exhibition of Asian art. Necessary pay of \$27,000 is requested for existing staff and an amount of \$11,000 is sought to compensate for the effects of inflation in nonsalary areas of expense. For FY 1985, increases also are requested relative to the Quadrangle and those justifications are included in the Quadrangle section of this budget presentation.

FREER GALLERY OF ART

PROGRAM - The Freer Gallery of Art houses one of the most distinguished collections of Oriental art in the world. The collection consists of over 26,800 works of art from China, Japan, Korea, India, and the Near East and spans 5,000 years. Included in the collection are paintings, sculptures, and other objects in stone, wood, lacquer, jade, pottery, porcelain, bronze, gold, and silver, and Biblical manuscripts. "The Peacock Room" by James McNeill Whistler is a highlight of an outstanding collection of American art that Charles Lang Freer, the Gallery's founder, considered a bridge between the East and West. Items not currently on exhibition are available for study to students and scholars. In addition to the collections, the Gallery houses a public library of approximately 30,000 volumes relating to the objects in the collections.

The unique Oriental collections of the Freer Gallery, together with notable holdings of American paintings, have made the museum a center for students, scholars and the general public on an increasing basis. This growing interest has been manifested in a steady increase in visitors, in requests for museum tours, in lengthy periods of advance bookings for authentication appointments, and in the number of visiting scholars and dignitaries.

Freer Gallery research facilities, comprising the collections, curatorial staff, library and technical conservation laboratories, form the nucleus of its specialized public service. Research findings are made available to the public through exhibitions, catalogues of exhibitions, articles, free gallery leaflets, and public lectures at the Freer as well as at other similar institutions. Greater effort has been placed on expanding the research files on the individual pieces in the collection. Research files are made available to visiting scholars and students as well as the general public.

Research - The Technical Laboratory of the Freer Gallery of Art is renowned for its research activities, in addition to the ongoing conservation and restoration of objects in the collection. In FY 1983, works of art in glass, wood, lacquer, leather, metal, jade, precious gems, etc., were treated, as well as a large number of manuscripts, prints, drawings, and watercolors. Research included lead-isotope ratios in Chinese bronzes, behavior of the copper-tin-lead alloy system, corrosion in archeological artifacts and induced corrosion on fakes and forgeries, publication of a paper on carbon-based pigments, use of atomic absorption and X-ray fluorescence analysis techniques for metal objects, infrared scanning for object examination, and further work on ancient Chinese pigments, especially the purple component of a synthetic Han-dynasty blue. The results from a survey of pigments on Japanese Ukiyo-e paintings are being reviewed, and the materials and techniques in a number of Japanese Buddhist paintings have been studied, including certain works having a previously unknown variant of the kirikane (cut gold leaf) technique. These projects will continue in FY 1984, along with the examination, conservation and writing of technical entries for the catalogue of the Islamic metalwork exhibition, scheduled to open in early FY 1985. Further work on the history of bronze alloys, especially in early Buddhist bronzes, continues as the routine conservation work of the Laboratory. In addition, examination and treatment began on objects from the Arthur M. Sackler Collection, scheduled for exhibition in the new Quadrangle building in 1986.

Exhibitions - In celebration of the 60th anniversary of the opening of the Freer Gallery of Art, "Studies in Connoisseurship, 1923-1983" explored the evolution of research and connoisseurship during Freer's time to the present on Near and Far Eastern objects purchased by Charles Lang Freer before his death in 1919. A reprint from Apollo magazine about the objects in this exhibition accompanied the show which opened to the public in September 1983. As part of the 60th anniversary of the Freer, the seventh Freer Medal was given to Professor Max Loehr for his outstanding contributions in the field of Chinese art.

Japanese exhibitions during FY 1983 included a show with screens that illustrate themes from parallel classic literary works, the "Tale of Genji" from Japan and "Yang Kuei-fei" from China. A general survey of ceramics, entitled "Japanese Ceramics from Past to Present" gave a brief overview of the history of Japanese ceramics from a Neolithic Jomon pot and Yayoi jar of the 1st-century B.C. to 20th-century pieces; this exhibition also included several recent acquisitions which were on exhibit for the first time.

In an exhibition titled "Summer Whites," the sensitivity to seasonal moods and associations was reflected in the Japanese custom of reserving porcelain primarily for summer use. Another exhibition, "Japanese Portraiture," included 18 portraits and pseudo-portraits by Japanese painters who lived from the 13th to 19th centuries.

Another major exhibition in FY 1983 was "Chinese Art of the Warring States Period: Change and Continuity, 480-222 B.C." On view were 151 examples of jade ornaments, lacquerware, bronze vessels and fittings, and other metalwork inlaid with gold and silver designs. Many of the objects were redated, reevaluated or understood more fully because of new knowledge resulting from recent archeological findings in the People's Republic of China. An illustrated catalogue revealing this research accompanied the exhibition.

In Chinese art, "Paintings of the Wu and Che Schools" depicted works representative of the mainstream of paintings in the Ming dynasty during the 16th century. Both the Wu and Che schools strongly influenced subsequent Chinese paintings. Another exhibition was "Chinese Flower Paintings" which included paintings of the 13th through 18th centuries. Flowers and bamboo appeared quite early as background motifs in Chinese figure paintings, then matured into major and independent subjects during the 10th century.

In "The Ramanyana" exhibition, 24 paintings from a 16th-century Indian manuscript tell the story of Rama, the Hindu god-man. A children's version of the story of Rama was published as the catalogue for the exhibition entitled, The Adventures of Rama. "Pre-Islamic Metalwork of the Near East" exhibited 24 objects of silver, gold and bronze, made in Iran and Egypt, from the 4th-century B.C. to the 6th-century A.D.

In FY 1984, the exhibition "Islamic Manuscript Illumination" opened on January 27th and displayed 19 folios produced in Egypt, Iran, Afghanistan and Uzbekistan between the 10th and 16th centuries offering a look at the decoration of religious and secular manuscripts. The exhibition "Japanese Drawings," scheduled to open in mid-March, will include important objects by Hokusai and Kawanabe Gyosai as well as a large portion from the Grut Collection, acquired in 1975 and never before exhibited. "Korean Influences in Japanese Ceramics" will display 25 objects from the Freer's Korean and Japanese collections that illustrate the influence of several Korean techniques on certain Japanese ceramics; and "Chinese Paintings" will include a selection of 30 paintings spanning the Sung dynasty through the Ch'ing dynasty. Two works by Tao-chi, a 17th-century painter with wide reputation in the West, will be included.

In May 1984, an important exhibition on James McNeill Whistler is planned to mark the 150th anniversary of the painter's birth. Every Whistler painting, drawing and watercolor in the Freer collection (almost 300 excluding about 1,000 prints) will be reproduced in the exhibition catalogue which can be considered a definitive statement on the Freer's Whistler collection, one of the two largest collections of his work in the world. The catalogue and exhibition will introduce a number of new topics for research and study on Whistler.

A major exhibition entitled "Islamic Metalwork" will open in December 1984. This exhibition will be the result of a three-year collaborative research effort by the

curator of Near Eastern art and the Technical Laboratory. Also planned for FY 1985 is an exhibition of "Chinese Calligraphy."

The Freer's fourth photographic exhibition "Charles Lang Freer: The Man and His Gallery" was developed using photographs and documents from the Freer archives. The exhibition presents a panoramic view of the life, travels and collection of Charles Lang Freer. The fifth photographic display complements the exhibition of Whistler holdings at the Freer Gallery. There is particular emphasis upon Whistler's relationship with Charles Lang Freer and upon the Peacock Room, which Freer saw as being a focal point of his museum.

Education - As part of the Freer's education program during FY 1983, the Gallery offered six Oriental art lectures covering a wide range of topics relating to the holdings of the Museum. This popular lecture series is continued in FY 1984 with the emphasis on connoisseurship in the past 60 years since the Freer Gallery opened to the public. A seventh lecture will be on James McNeill Whistler. Other parts of the education program include a free introductory brochure given to the public and mailed to individuals and groups who write for general information on the Freer, the continuance of the highly successful free exhibition leaflets introducing various aspects of the Gallery's collections, and the tours given by docents. The Freer now offers a free introductory brochure for the visually impaired. In FY 1983, over 12,000 visitors joined the weekday and weekend tours given four times daily.

ARTHUR M. SACKLER GALLERY

PROGRAM - The primary goal of the Sackler Gallery, a component of the Quadrangle, is the advancement of the scholarly appreciation and public knowledge of the arts, especially Near and Far Eastern art. Towards this end, Dr. Arthur M. Sackler has given a collection of nearly 1,000 objects in the fields of Chinese, Indian, Southeast Asian and Near Eastern art. An increase was approved and appropriations were provided in FY 1984 to fund an assistant director for the Sackler Gallery and for steel storage cabinets to serve as temporary storage at the Museum Support Center for the valuable artworks. Among the works in the collection are 475 Chinese jades spanning a period from Neolithic times (5000 B.C.-1500 B.C.) into the 20th century; 153 Chinese bronzes from the Shang (ca. 1523 B.C.-ca. 1028 B.C.) through the Han (206 B.C.-220 A.D.) dynasties; Chinese lacquer, Near Eastern metalwork, and sculpture from ancient Cambodia, India and Thailand.

The Sackler Gallery may acquire art objects in those fields of central interest to the Museum, e.g., the arts of Asia in its broadest terms, from Korea to Egypt. Objects acquired for the collection in the future will be of high quality with respect to aesthetic standards, cultural history and physical condition. Objects may be acquired by gift, bequest or purchase provided that they meet established acquisition criteria and the approval of the Director.

An extensive exhibition program is envisioned. This program will include Gallery-originated exhibitions as well as traveling exhibitions organized elsewhere. Exhibitions will be drawn from international public and private collections as well as from the Sackler collection. It is expected that many Gallery-organized exhibitions will travel to other museums and institutions. The inaugural exhibition in the new building will display the entire collection of the Sackler Gallery along with certain other major objects on loan from the collection of Dr. Sackler. Under consideration for future exhibitions are Chinese mirrors, Ordos bronzes, Chinese lacquer, Indian and Southeast Asian sculpture, Chinese garment hooks, Sasanian metalwork, Chinese furniture, Near Eastern ceramics, Far Eastern ceramics, and Chinese sculpture. Research catalogues will accompany these exhibitions.

In addition to scholarly publications related to particular exhibitions, an extensive publications program is planned. Under consideration is a journal that would publish scholarly articles relating to objects in the Sackler collection as well as research that encompasses the cultures represented in the collections. The rich collections of the Gallery will attract a large number of research scholars, and an active program for awarding research fellowships is anticipated. Fellowship recipients would work closely with curators on topics related to the collections.

An expanded Oriental painting restoration program also is being planned. There is a critical shortage in this country of skilled persons trained in traditional methods of preserving Far Eastern paintings and screens. Only three facilities capable of restoring and mounting rare Far Eastern paintings and screens exist in this country, and the works in those institutions consume all of the time of those studios. Studios in Japan also are occupied fully with conservation of their own collections.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are provided from allotments and are used to defray the costs of special events associated with the opening of new exhibits, to cover the travel costs of members who attend the Center's Visiting Committee meetings and to defray the costs of business-related dinners and meetings. These funds also support the Coordinator of Special Programs position in the Center. In FY 1983, approximately \$19,000 from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program was used for a study by the Freer Gallery's Technical Laboratory on lead-isotope ratios in Chinese bronzes.

Restricted Funds - The major portion of the nonappropriated Trust funds used by the Center stems from the Charles Lang Freer gift and bequest and is restricted by the conditions that are stipulated in that document. The funds are used to help finance expenses of the Freer's professional curatorial staff, administrative staff, acquisitions for the collections and library, the maintenance of the Freer's courtyard and the operation of the Freer museum shop (expenditures of \$1,268,000 in FY 1983 and estimated expenditures of \$1,417,000 in FY 1984 and \$1,494,000 in FY 1985). In FY 1983, a grant of \$12,500 was received from the Danziger Fund for the purchase of Japanese art. A grant from AT&T for \$120,000 was received to support the exhibition and catalogue on James McNeill Whistler. Amounts for this project are not included in the summary chart in order to be consistent with the Institution's Five-Year Prospectus which was prepared prior to the receipt of this grant. In FY 1984, additional support was received from the Clark Endowment for the purchase of Japanese art and from the Harold Stern Endowment to support scholarly research (estimated expenditures of \$30,000 in FY 1984 and \$18,000 in FY 1985).

ARCHIVES OF AMERICAN ART

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	16	679	-	1	-	1	12	766	-	-
FY 1984 Base /1	16	724	-	4	-	-	16	973	-	-
FY 1985 Estimate	16	741	-	4	-	-	17	936	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>16</u>	<u>0</u>	<u>0</u>	<u>16</u>
11 Personnel Compensation...	543	10	-	553
12 Personnel Benefits.....	56	1	-	57
21 Travel.....	18	-	-	18
22 Trans. of Things.....	3	-	-	3
23 Rent, Comm. & Utilities..	23	1	-	24
24 Printing & Reproduction..	25	2	-	27
25 Other Services.....	30	2	-	32
26 Supplies & Materials.....	8	1	-	9
31 Equipment.....	<u>18</u>	<u>-</u>	<u>-</u>	<u>18</u>
Total	<u>724</u>	<u>17</u>	<u>0</u>	<u>741</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Archives of American Art is the nation's largest repository of documentary and source materials relating to the history of the visual arts in the United States. Its primary mission is to stimulate research and publication in the field of American art history through the acquisition, preservation, and scholarly use of the papers of American artists, and records of art galleries, museums, and art societies. Microfilm copies of these collections are available to scholars and researchers through the Archives' national network of regional research centers (located in Boston, Detroit, New York, San Francisco, Los Angeles, and Washington, D.C.) and through interlibrary loan to libraries across the United States. To complement these manuscript collections, the Archives preserves the oral and audio-visual records of interviews with key individuals involved in American art through its Oral History Program. No program

increase is requested for FY 1985. Necessary pay of \$11,000 is required for existing staff and an amount of \$6,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Archives of American Art, established in 1954 at the Detroit Institute of Arts, fulfills the need for a centralized repository of documentation on the visual arts in America; the Archives became a bureau of the Smithsonian Institution in 1970, reinforcing the Smithsonian's role as a primary center for the documentation and study of American art. The collections, in excess of eight million items, consist of artists' letters, sketchbooks, diaries, business papers, and photographs; extensive holdings of museum and gallery records; more than 2,000 tape-recorded interviews with artists, dealers, critics, collectors, and museum directors; and a growing collection of audio-visual interviews.

This material, filled with historical data concerning the people and events significant to American culture, provides scholarly resources for research and study in American art history. The Archives' holdings are microfilmed to assure the preservation of the original documents and to provide microfilm copies of the collections for greater accessibility to researchers.

In FY 1983, the Archives acquired by gift or loan 307 collections of records for microfilming from art-related individuals and institutions. Among the more notable groups were the personal and professional papers of artists Jose de Rivera, Charles W. Hawthorne, Al Hirschfeld, Abraham Rattner, and Charles White; art historians Edward Dwight, Gordon Hendricks, and Marchal Landgren; art critic Dore Ashton; and early 20th-century theorist, Jay Hambidge. The major acquisition of institutional records was the complete archives of the American Academy in Rome.

The Archives conducted 59 oral history and audio-visual interviews in FY 1983 in its continuing effort to document contemporary artists, craftsmen, dealers, critics, and art historians. Particularly rich interviews were recorded with Kenneth Callahan, Jacob Kainen, Antoinette Kraushaar, Peter Selz, and Esteban Vicente. The oral history project on Mark Rothko, begun in FY 1981, continues to gather reminiscences of that artist. A separate Northwest Oral History Project, established in Seattle to cover leading figures of the region, completed 34 interviews.

During FY 1983, over 3,000 research visits were made to the regional centers, where 7,500 rolls of film and 250 oral history interviews were consulted. The interlibrary loan office received 520 loan requests and sent out over 1,400 rolls of microfilm to requesting libraries throughout the country and abroad. Research conducted at the Archives resulted in a larger than usual number of books, exhibition catalogues and articles published in FY 1983. Among the notable publications giving credit to the Archives were three exhibition catalogues on the modern sculptor David Smith, two on George Bellows, and on other well known American artists including Reginald Marsh, Joseph Stella, Joseph Cornell, and John Peto. More general subjects covered in catalogues were American artists in Brittany and Normandy and American urban realism of the 1930s. Specialized studies on such major figures as Thomas Eakins, Louis Lozowick and Alfred Stieglitz also depended on Archives' materials.

The Archives contributed letters, photographs, sketchbooks, and other items from its holdings to several museum exhibitions in FY 1983. The most notable was a large documentary exhibition on David Smith, organized by the Archives and mounted at the Hirshhorn Museum and Sculpture Garden in connection with its show of Smith's paintings and sculptures. In another instance of interbureau cooperation, material from the Archives' Gertrude Vanderbilt Whitney Papers was exhibited at the National Portrait Gallery. The Whitney Museum of American Art in New York and the Museum of Fine Arts in Boston borrowed documents to supplement exhibitions on Thomas Eakins and Reginald Marsh.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided to defray costs associated with special events and to supplement a portion of the travel expenses incurred by the Archives' Board of Trustees.

Restricted Funds - These are generated through fund-raising activities, the solicitation of gifts, as well as foundation and corporate grants, and a membership program. A substantial portion of this income is used to support the Archives' general operating expenses, including 16 full-time employees, its Oral History Program, and the entire publications program.

Foundation and corporate grants have provided the principal sources of support for special projects. In FY 1983, the Weyerhaeuser Foundation grant of \$20,000 more than doubled the available funds for the Northwest Oral History Project scheduled for completion in FY 1984; the Michigan Council for the Arts grant of \$13,000 and Michigan Foundation for the Arts grant of \$9,000 will be used to complete the film series "Artists in America" in FY 1984.

The Archives' Texas Collecting Project received approximately \$250,000 through fund-raising that supports acquisition efforts (expenditures of \$110,000 in FY 1983 and estimated expenditures of \$100,000 in FY 1984 and \$68,000 in FY 1985). Also supported by fund-raising activities, contributions, foundations and with the cooperation of the Henry E. Huntington Library and Art Gallery, the Archives of American Art is expanding its collections acquisition program to Southern California; more than \$20,000 was raised in FY 1983 toward hiring an area collector, secretary and related operating costs for the Los Angeles Center in FY 1984 and FY 1985. A \$150,000 grant from the Henry Luce Foundation will support archives collecting projects in Rhode Island, Philadelphia and other areas. Support for the Chicago Collecting Project was received from three foundations. Supported by a \$60,000 grant from the Brown Foundation, Inc. the Archives of American Art appointed, for a one-year period, a Senior Visiting Scholar to do research and writing on the history of American art. From the Robert Wood Johnson, Jr. Charitable Trust, a grant of \$50,000 will help to produce a film on the Archives of American Art.

COOPER-HEWITT MUSEUM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	22	805	9	527	12	1,151	1	549	-	48
FY 1984 Base /1	32	859	9	391	12	963	1	492	-	75
FY 1985 Estimate	32	1,092	9	421	6	1,007	-	319	-	75

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>32</u>	<u>0</u>	<u>0</u>	<u>32</u>
11 Personnel Compensation...	618	24	181	823
12 Personnel Benefits.....	73	2	19	94
21 Travel.....	4	1	-	5
22 Trans. of Things.....	3	1	-	4
23 Rent, Comm. & Utilities..	14	-	-	14
24 Printing & Reproduction..	5	-	-	5
25 Other Services.....	50	2	-	52
26 Supplies & Materials.....	76	3	-	79
31 Equipment.....	<u>16</u>	<u>-</u>	<u>-</u>	<u>16</u>
Total	<u>859</u>	<u>33</u>	<u>200</u>	<u>1,092</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Cooper-Hewitt Museum, housed in New York City's national landmark Andrew Carnegie Mansion, opened its doors to the public in October 1976 as a National Museum of Design. With world-renowned collections that include drawings, textiles, prints, wallpapers, furniture, jewelry, glass, ceramics, metalwork and other examples of decorative and the applied arts representing three millennia and dozens of cultures from every continent, the Museum is an important center for the interpretative display and the study of the arts of design. For FY 1985, an increase of \$200,000 is requested to provide Federal status and funding for seven positions thereby establishing an adequate funding base, comparable to other Smithsonian museums responsible for the care of the National Collections. No new positions are being requested as they will be reallocated from current workyear resources. Necessary pay of \$26,000 is required for existing

staff and an amount of \$7,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Cooper-Hewitt is a center for collections, exhibitions, and educational activities devoted to historical and contemporary design. The Museum was established as the Cooper Union Museum for the Arts of Decoration in 1897 and was conceived as a hands-on, working laboratory for the benefit of designers in all fields, whether practitioners or students. Through the generosity of several benefactors, extraordinary resources were assembled and freely made available for study. The Museum has been described as having one of the most distinguished working collections in the world.

In 1967, the Museum's collections and library were transferred by the Cooper Union to the Smithsonian Institution and renamed the Cooper-Hewitt Museum, the Smithsonian Institution's National Museum of Design. Today the collections are housed in the 1902 mansion originally built as the residence of the philanthropist Andrew Carnegie, as well as an adjacent town house (also owned at one time by the Carnegie family). The properties were given to the Institution as a permanent home for the Museum by the Carnegie Corporation in 1972. The Museum's collection of drawings is the largest of any museum in this country, and its prints, textiles, and wallpaper holdings are of international importance. Groups of jewelry, silver, porcelains and other ceramics, glass, and furniture constitute the decorative arts collections; and its library, with 35,000 volumes and archives of related materials, is recognized as being among the most important of its kind in the country.

Care and preservation of its collections are the Museum's primary responsibilities and it continues to serve as a Conservation Advisory Center for the State of New York. Collections management also is of primary concern to the Museum. Phase one of the collections inventory, the physical count, was completed on schedule in FY 1983. In FY 1984, the Museum will continue the necessary second stage of the inventory, the reconciliation of old records with the records of the more than 165,000 items now identified in the collections. Concerted effort will continue throughout FY 1984 and FY 1985 to coordinate public and staff requirements for photographic services and simultaneously to improve the state of photographic documentation of the Museum's holdings. A particularly promising prospect in this field is the exploration of the feasibility of a videodisc publication project which could produce a sophisticated, high-quality visual index to many important collection objects. Several important groups of documents, drawings, specialized study materials, and other items relating to major designers or design topics (e.g., color) have come into the Museum's keeping and require archival organization and management to facilitate the public access and examination they deserve.

The Cooper-Hewitt is a leader among New York's museums in the field of educational activities. Attendance by the general public and the Museum's members at subscription series lectures, classes, workshops and tours in the first three-quarters of FY 1983 reached nearly 3,000 people. An additional 5,000 people were served in the same period by innovative programming for school children, senior citizens, and community groups as the Museum continued to participate in the city's Cultural Voucher Program.

FY 1984 will bring the graduation of the first class and the enrollment of the second class of students in the two-year Master's degree program in the history of the decorative arts. The program, unique in its scope, is administered jointly by the Museum and the Parsons School of Design. All classes are being taught at the Museum and extensive use is made of the Museum's collections as teaching materials. Among those enrolled in FY 1984 will be a student recruited with the assistance of a two-year, \$25,000 Ford Foundation Scholarship awarded to the Museum to encourage a curatorial career by a member of a minority group. Dozens of interns also work and study at the Museum in various capacities.

The majority of the Cooper-Hewitt's public--its FY 1983 visitation was over 216,000 persons--is comprised of individuals who visit one or more of the Museum's imaginative and popular temporary exhibitions. With four separate areas of the Mansion designated for this purpose, the Cooper-Hewitt offers 12 to 16 exhibitions annually, the majority of which are accompanied by a catalogue. In FY 1983, visitors to the Museum enjoyed a landmark survey of Scandinavian modern design between 1880 and 1980. Organized by the Museum with the aid of a grant from the American Scandinavian Foundation, the exhibit traveled to Minneapolis, Washington, D.C., and Copenhagen. Subsequent exhibitions drew heavily from the Museum's own holdings in the areas of theatrical design and antique lace. "American Picture Palaces" recalled the era of monumental motion picture theater architecture; "Photography and Architecture" surveyed the early history of the photographic medium with an eye toward its utility and influence among architects, architectural historians, and critics. At the same time, Frank Lloyd Wright was presented in a major exhibition in the context of his closest associates and colleagues of his early career. A book to accompany the exhibition, entitled Frank Lloyd Wright and the Prairie School, with an essay by Professor H. Allen Brooks, is being published by George Braziller, Inc., for the Museum. One of the the most successful exhibitions ever presented at the Cooper-Hewitt Museum was "Faberge: Jeweler to Royalty, from the Collections of Her Majesty Queen Elizabeth II and other British Lenders," on view from mid-April to early July 1983. The exhibition drew capacity crowds of over 100,000 visitors.

One of the major exhibitions in FY 1984 is the first American examination of the "Amsterdam School: Dutch Expressionist Architecture, 1915-1930." This important survey of a topic little-known to most Americans is accompanied by a publication of the same title co-published by the Museum and M.I.T. Press. American design ingenuity and artistry will feature prominently in two other major shows: the first devoted to the colorful world of "American Enterprise: Nineteenth-Century Patent Models," and the other presenting the finest examples of "Embroidered Samplers" from the Museum's own collection. A collections handbook devoted to samplers will be produced simultaneously with the exhibition. Major exhibition subjects in development for FY 1984, FY 1985, and beyond include designing for tea, the arts of the American Plains Indians, European illustration of the recent past, and "Jewelry, Ancient to Modern," among others. Still other prospects to which the Museum has devoted preliminary investigations range from a critical survey of American industrial design to exotic oriental influences on British and American decorative arts and architecture in the 19th century, to a technical and iconographical essay on color as a design tool, and in FY 1986, a major, new interpretation of the universal design process themes first hinted at in "MANtransFORMS," the exhibition with which the Museum opened its doors in October 1976.

Cooper-Hewitt collections and exhibition projects continue to be adapted for national circulation by the Smithsonian Institution Traveling Exhibition Service (the most recent examples being "Urban Open Spaces" and "Matchsafes," the latter drawn from the Museum's collection of approximately 4,500 examples). The Museum continues an extremely active lending program, making its collections available to museums and institutions in the United States and abroad.

Another of the Museum's central tasks is the building and refinement of its collections. The Museum acquired, in FY 1983, a very fine set of 37 Frank Lloyd Wright drawings, in part with funds made available by the Trust-funded Collections Acquisition Scholarly Studies, and Educational Outreach Program. Gifts from 60 donors in FY 1983 totaled 230 objects. The Museum was able to purchase 16 additional objects utilizing Trust funds.

EXPLANATION OF PROGRAM INCREASE:

Federalization of Positions (\$200,000) - For FY 1985, an increase of \$200,000 is requested to provide Federal status and funding for seven positions, thereby

establishing an adequate funding base, comparable to other Smithsonian museums responsible for the care of the National Collections. No new positions are being requested as they will be reallocated from current workyear resources.

When the Smithsonian accepted responsibility for the collections of the Cooper Union Museum, an experimental American Museum of Design based upon the distinguished models of London's Victoria and Albert Museum and Paris' Musee des Arts Decoratifs, the nation's cultural resources were enhanced considerably. Given the Museum's origins and subsequent history as an achievement of private philanthropy in the spirit of public benefit, the Smithsonian intends to preserve a strong mix of private support with enhanced Federal support. Moreover, the continuing involvement of private resources is a valuable means of involving New York City and the international design communities with the Museum's progress and evolution. It always will be important to permit and encourage the Museum to continue seeking private support in activities such as membership and subscription educational programs, publishing, and the museum shop.

While the Museum pursues such activities, however, the professional care and exhibition of its collections is a responsibility that must be faced and provided for more adequately. The Institution's Trust-funded investment in the Cooper-Hewitt has yielded high dividends, but the Federal investment has not kept up with the public value of these collections and the basic responsibility to preserve and exhibit the objects in the collections. With an increased Federal commitment to the basic responsibility to preserve and exhibit the Museum's collections, the Cooper-Hewitt's mission as a national museum of design will be strengthened. Further, the role of the Museum's private support in sponsoring the other program areas with innovative planning and wide-spread involvement of the design communities will be reinforced. Therefore, as an integral part of the FY 1985 budget request, \$200,000 is sought to convert seven Trust fund positions to Federal status. These positions are a curator of decorative arts, curator of textiles, registrar, registration clerk, clerk-typist, photographer, and an exhibit designer. Substantial unrestricted Trust funds will continue to be an important commitment on the Institution's part to assure a lively and innovative exhibitions program.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from a variety of sources including museum shop sales, product development, membership and admission fees, donations, fund-raising events, and allotments. The allotments to date have supported salaries of the director, administrative officer and various other staff members and help to defray expenses associated with special events such as exhibition openings. Specific funds are used to support various educational programs, museum shop expenses, exhibitions and publications for the Museum (estimated expenditures of \$963,000 in FY 1984 and \$1,007,000 in FY 1985).

Restricted Funds - These funds are provided from grants, bequests, and other donations from individuals, foundations, organizations, or corporations for specific purposes. Major gifts in these categories during FY 1983 included: a bequest of \$41,000 from Ida C. McNeill in memory of her parents, to support the Museum's modest funds for collections acquisition; a gift in honor of Enid W. Morse by her husband to underwrite a lecture and publication series (\$25,000); a two-year scholarship for a minority student in the Museum's Master's degree program from the Ford Foundation (\$25,000); generous sponsorship for the "American Patent Models" exhibition from the New York City law firm of Simpson, Thacher, and Bartlett in honor of their centennial (\$100,000); and a gift from the Schroder family to defray the loan fee for the exhibition "Virtuoso Goldsmiths" (\$16,000). In FY 1983, the Smithsonian's Office of Membership and Development hired a full-time development officer to assist in the Museum's heavy task of raising funds for its continuing programs as well as the major capital improvement

campaign which is being prepared for the renovation and expansion of the Museum's physical plant.

In FY 1983, Cooper-Hewitt had expenditures totaling \$246,000 for two major exhibitions, "Scandinavia Today" and "Faberge: Jeweler of Royalty, from the Collections of Her Majesty Queen Elizabeth II and other British Lenders," and expenditures of \$20,000 in FY 1983 and an estimated \$90,000 in FY 1984 for the "American Enterprise: Nineteenth Century Patent Models," and "Amsterdam School: Dutch Expressionist Architecture, 1915-1930" exhibits. In conjunction with the Book of the Month Club, Inc., Cooper-Hewitt is producing a series of books on decorative arts (expenditures of \$415,000 in FY 1983 and estimated expenditures of \$41,000 in FY 1984). The Museum is estimating expenditures of \$229,000 in FY 1984, and \$230,000 in FY 1985 for various other exhibitions.

Federal Grants and Contracts - These funds are provided by various government agencies and departments for specific program support. The Museum annually seeks funding in varying amounts from the New York State Council on the Arts for exhibition support and other programs as well. Requests for 15 separate projects were submitted for possible funding in FY 1984 (estimated expenditures of \$75,000 in FY 1984 and \$60,000 in FY 1985).

NATIONAL MUSEUM OF AFRICAN ART

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	26	934	-	206	-	888	3	-41	-	-
FY 1984 Base /1	25	996	-	9	-	10	3	105	-	-
FY 1985 Estimate	25	1,031	-	9	-	10	1	57	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>25</u>	<u>0</u>	<u>0</u>	<u>25</u>
11 Personnel Compensation...	765	23	-	788
12 Personnel Benefits.....	80	2	-	82
21 Travel.....	18	1	-	19
22 Trans. of Things.....	15	1	-	16
23 Rent, Comm. & Utilities..	2	-	-	2
24 Printing & Reproduction..	24	2	-	26
25 Other Services.....	32	2	-	34
26 Supplies & Materials.....	35	2	-	37
31 Equipment.....	10	1	-	11
Collections Acquisition..	15	1	-	16
Total	<u>996</u>	<u>35</u>	<u>0</u>	<u>1,031</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - Following the signing of Public Law 95-414 by the President authorizing the Museum of African Art to become part of the Smithsonian Institution, and the subsequent supplemental appropriation passed in FY 1979, the Museum of African Art, established as a private museum in 1964, officially joined the Smithsonian in August 1979. In 1986, the Museum will relocate to the Mall as a part of the Smithsonian's Center for African, Near Eastern and Asian Cultures. The National Museum of African Art (NMAfA) is the only museum in the United States devoted solely to the exhibition and study of the visual arts of sub-Saharan Africa. Necessary pay of \$25,000 is requested for existing staff and an amount of \$10,000 is sought to compensate for the

effects of inflation in nonsalary areas of expense. Increases also are requested relative to the Quadrangle and those justifications are therefore included in the Quadrangle section of this budget presentation.

PROGRAM - At its present location on Capitol Hill, the Museum occupies a row of nine townhouses, one of which was the residence of the 19th-century black abolitionist, orator, and public official Frederick Douglass. In 1986, the Museum will move to a new permanent building on the Mall as a part of the Smithsonian's Center for African, Near Eastern and Asian Cultures. Once relocated, the Museum will have a unique role in the United States museum community. It will have the space for its collections and professional staff and will be able to respond to this nation's growing interest in African art and culture. The mandate of the National Museum of African Art is clearly defined: "...to foster and sustain through exhibitions, collections, research and programs an interest in and an understanding of the diverse cultures in sub-Saharan Africa." In order to carry out its mandate effectively, the Museum will place greater administrative emphasis during FY 1984 on establishing distinct yet efficient and cooperative organizational units: educational, curatorial and administrative. This analysis and clarification of functions and needs is essential in order to respond effectively to increased public and scholarly interest, as well as to prepare for the relocation of the Museum.

Exhibitions - In FY 1982, the Museum adopted the concept of thematic exhibitions to promote greater understanding about African art and culture. This approach was continued in FY 1983. The result was the development of a series of thematic presentations that demonstrated both the aesthetic excellence of the objects and the socio-cultural complexity of the societies from which they came. Three exhibitions were organized during FY 1983: "African Emblems of Status," composed of objects that reflect the emphasis placed by some African societies on aesthetically beautiful forms and designs created to enhance an individual's status, wealth, authority and privilege; "From the Earth: African Ceramic Art," examined the art of the African potter created for utilitarian and ritual purposes; and "African Art in Color," an experimental exhibition, which explored the widespread use of color by traditional African artists to enhance a symbolic or magical purpose in their work. These thematic presentations achieved their goal. They conveyed to the viewing public a sense of the character and meaning of the objects by revealing as much as possible about their creators, their context and their meanings--aesthetically, culturally, technologically, and historically.

It was recognized, however, that exhibition approaches must be varied if they are to be forceful and clear visual statements. Hence the thematic concept was expanded to include exhibitions that could focus on a single ethnic group, an historical topic, or a particular cultural area. The FY 1984 schedule began in November with the opening of a major loan exhibition, "African Islam," which historically and visually demonstrates the highly flexible and syncretic phenomenon of Islam in sub-Saharan Africa. The meeting of Islam and sub-Saharan traditional cultures often resulted in new and vigorous visual traditions. The exhibition catalogue, published by Ethnographica Ltd., London, in cooperation with the Smithsonian Institution Press, serves as a major contribution to the discipline of art history. This will be followed by the Smithsonian Institution Traveling Exhibition Service's "Ethiopia: The Christian Art of an African Nation," as well as an exhibition of objects drawn from the Museum's permanent holdings, titled "Selections from the Permanent Collection." Finally, an exhibition originated by a member of the Museum's curatorial staff will explore the imagery of African gameboards as aesthetic forms, as well as their history, context and meaning. Each of these installations include explanatory texts and visual support materials to clarify further the major ideas underlying the works of art. The Museum also designated one of its galleries in FY 1984 as the Focus Gallery, for a series of small, rotating exhibitions curated by members of the staff. All of the objects were

selected from the Museum's permanent collection and demonstrated an aspect of the artistic variety, creative genius or cultural diversity found in Africa.

For FY 1985, two major exhibitions have been scheduled. The first, "Igbo Arts: Community and Cosmos," is the first comprehensive show in the United States of approximately 250 objects devoted to the art and culture of this major ethnic group living in present-day Nigeria. It is being organized by the UCLA Museum of Cultural History and will be accompanied by a definitive catalogue. The second, titled "Praise Poems," is devoted to 100 masterpieces of African art from the Katherine White Collection, now a part of the Seattle Art Museum. The White Collection of African Art is one of the most celebrated in the United States. The catalogue will include not only essays written by specialists in the field, but also will have poems written by the collector "in praise of" selected works of art.

Collections - The Museum of African Art's permanent collection is broad in its sub-Saharan representation; however, its strength lies primarily in its holdings from the regions of the western part of the Sudan and the Guinea Coast. The development of the collection continued through an active acquisition program that followed two paths: gifts and purchases. Among the significant gifts donated to the permanent collection in FY 1983, were a number of important objects (ceramics, textiles and wood sculpture) that came as a result of general public and private collector interest in the exhibitions that the Museum had organized.

In FY 1983, intensive cultivation nationwide of a greater number of private collectors was begun. This thrust must be increased and new museum/collector relationships rigorously sustained in view of the impending move to the Mall. This on-going collection developmental work was enhanced greatly by a major purchase of a Yombe sculpture through the Smithsonian's Trust-funded acquisitions program. It is an important example of Central African wood sculpture and the first of such extraordinary quality from this region of Africa to enter the Museum's permanent holdings. This carving of a female figure and child, attributed to the Yombe people of Zaire, dates to the late 19th century, and was known to have been collected before 1914. It is one of six such extant carvings, all of which are attributed to one carver called, "The Master of the de Briey Maternity." It is the only one of the series in the United States. The other five are in collections in Belgium and Canada. Its rarity, exceptional aesthetic quality and provenance have brought the Museum's Central African holdings into the forefront of United States museums.

Additional significant acquisitions were made possible through the Museum's FY 1983 Federal appropriation for works of art. In each instance, the works of art acquired greatly strengthened existing holdings, or filled major collection gaps. The objects included an early documented 19th-century Ashanti textile from Ghana comparable to early examples in the British Museum and the Rijksmuseum voor Volkerkunde, Leiden; a rare divination instrument from the Holo people of Zaire; and an unusual figurative ceramic vessel from the Lwena people of Zaire, signed and dated by the artist, and an important Sono bronze staff (finial) from Guinea Bissau. In FY 1984, major additions to the collections were sought from Gabon, Zaire, Angola and southern Africa. These included several gifts: a Kota reliquary from Gabon, a collection of 10 sculptures from various Zairian ethnic groups, and an important collection of 62 examples of N'Debele beadwork from southern Africa.

Education and Public Orientation - It is imperative that all art museums, and certainly the National Museum of African Art, conceive and implement creative educational programs and outreach activities--particularly for children and young adults. This is the only way that generations to come can understand and appreciate the creative achievements of their own past and those of the wider world of which they are a part. Such activities must reach a broad spectrum of the American public. The Museum, in

spite of minimal staff, space, and funds, has been able to conduct an innovative lecture and workshop program. Its content has been a direct outgrowth of the exhibition and collections acquisition programs. Workshops, docent-led tours, undergraduate college level courses taught by Museum staff, and intern training are linked firmly to curatorial research and collection development. A teaching/training staff of four with docent assistance served more than 300 groups (approximately 10,000 students) from the Washington, D.C., Maryland, and Virginia elementary and secondary school systems in FY 1983. In FY 1984, the Museum's Department of Education and Research embarked on a pilot series program designed for one elementary school in the Washington, D.C. metropolitan area and capable of replication, if successful. This program has three major components: school visits by a museum education specialist to introduce concepts of multi-sensory perception and identify the basic elements of art, through African art; a museum visit including an exhibition tour and a presentation in which the students concentrate on African concepts of pattern in art, music, and other aspects of cultural life; and a craft workshop in which students put into action the concepts they have learned.

Research - The entire Museum staff consults with curators, art historians and anthropologists throughout the world about ongoing research on the origin, function, authenticity, provenance and aesthetic quality of objects in the collection, as well as recent developments in scholarly field research. In FY 1983, two Smithsonian Research Fellows, one African and one American, selected the National Museum of African Art for the opportunity to conduct and share their own intensive research on specialized African art topics.

Exhibitions are conceived and their catalogues written by staff as well as guest curators. In addition, the Eliot Elisofon Photographic Archive, named for the famed LIFE photographer, now consists of 24,181 color slides, 32,126 black and white photographs, and 100,000 feet of unedited film footage on African art and culture. The foundation of the archive was the bequest by Elisofon of his own visual documentation. However, gifts from scholars, collectors and interested members of the public substantially increased the volume of visual documentation now available. This continues to be a growing resource available to academic institutions, museums, scholars, and the public from all parts of the world.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from the Museum's share of sales in the museum shop, membership contributions, courses conducted in cooperation with metropolitan area public education institutions, and allotments. They are used to support the cost of certain museum publications, opening of new exhibitions, and to defray travel costs associated with meetings of the Board of Trustees. An allotment of \$172,000 was provided in FY 1983 for the mortgage payments at the present location on Capitol Hill and to support insurance premiums plus the salary and benefit costs of three employees. Under the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program, the National Museum of African Art in FY 1983 received \$375,000 for the purchase of a carved wooden sculpture of mother and child from the Yombe culture of Zaire. The sculpture is one of six extant Yombe figures that have been in European public and private collections since the turn of the century. A sum of \$500,000 was received for the purchase of two high quality Benin bronzes, an Oba head dating from the early period of Benin history and a plaque from the middle period, respectively dated to approximately A.D. 1500 and A.D. 1700. Together they reflect the history of Benin art at its best. In FY 1983, an expenditure of \$50,000 was recorded for the Lamb Collection of cloths and objects relating to weaving and other textile processes from West Africa (purchased jointly with the Museum of Natural History in FY 1982 for \$330,000).

Restricted Funds - Funds provided here are in the form of grants and gifts from individuals, foundations, organizations or corporations for specific purposes. Generally, they provide support for a particular project or exhibit. For example, in FY 1983, a grant received from the Shell Companies Foundation provided partial program and salary support for the Museum's educational activities (\$10,000). Funds from various individuals, organizations and corporations provided support for the Education Department which, among its programs, conducts credit courses each semester in cooperation with local universities (estimated expenditures of \$71,000 in FY 1984 and \$22,000 in FY 1985). Gifts and grants also are anticipated to support a special publications program (estimated expenditures of \$33,000 in FY 1984 and \$35,000 in FY 1985). The Museum is seeking outside support actively from various sources to acquire or supplement the acquisition of important major works for the collection as well as to support its education, research and exhibition programs.

ANACOSTIA NEIGHBORHOOD MUSEUM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	18	700	1	29	-	3	-	2	-	-
FY 1984 Base /1	19	836	1	32	-	-	-	1	-	-
FY 1985 Estimate	19	863	1	33	-	1	-	1	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>19</u>	<u>0</u>	<u>0</u>	<u>19</u>
11 Personnel Compensation...	546	14	-	560
12 Personnel Benefits.....	58	1	-	59
21 Travel.....	4	-	-	4
22 Trans. of Things.....	4	-	-	4
23 Rent, Comm. & Utilities..	40	-	-	40
24 Printing & Reproduction..	25	-	-	25
25 Other Services.....	45	4	-	49
26 Supplies & Materials.....	105	4	-	109
31 Equipment.....	<u>9</u>	<u>4</u>	<u>-</u>	<u>13</u>
Total	<u>836</u>	<u>27</u>	<u>0</u>	<u>863</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Anacostia Neighborhood Museum was founded in the Anacostia section of Washington, D.C., in 1967 by the Smithsonian Institution to provide the opportunity and the resources for a continuing museum experience for community groups and individuals; to serve as a cultural resource for the people of Anacostia and to attract them to the Museum and other facilities of the Smithsonian; and to contribute to exhibitions throughout the Institution relating to black peoples' contributions to science, history and art in America. The Museum also serves as a source of materials on black American history for similar institutions around the Nation and demonstrates to other museums and neighborhoods, with similar geographic and social patterns, new ways to lead previously uninvolved groups into the worlds of science, history and the arts. In order to foster closer collaboration with other Smithsonian history and art museums, the Anacostia Neighborhood Museum was transferred organizationally in FY 1983 from Public

Service to History and Art. No program increase is requested for FY 1985. Necessary pay of \$15,000 is required for existing staff and an amount of \$12,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - Programmatic goals and objectives of the Anacostia Neighborhood Museum are simple and straightforward: to plan, develop and manage research projects that will support in-house and traveling exhibitions; to plan, develop, write, design, and produce exhibitions for general museum audiences; to prepare catalogue/source books to accompany museum exhibitions; to identify, locate, and interpret historical documents, artifacts and memorabilia that are germane to Afro-American studies and ethno-history for use in museum exhibitions both currently planned and appropriate for the future.

By far the greatest impact on the Museum's plans over the next few years will be the relocation of its public exhibition and education space from the Carver Theater building to the planned expansion to the already existing Exhibits Research, Design and Production Laboratory at Fort Stanton Park. This move will consolidate all the Museum's functions at one site in an area which is far more inviting and safer for visitors. In FY 1985 a year-long exhibit entitled "The Harlem Renaissance" will open. This exhibition will be followed by exhibitions on Afro-American artists with emphasis on how an African heritage impacts on art. At the same time, the education department will continue to support the mission of the Museum through the development and implementation of a full range of educational programs.

In keeping with its goal to serve as a cultural resource for the people of Anacostia, the Museum opened in FY 1983 a show entitled "Here, Look at Mine," an exhibition of the work of John N. Robinson, a 72-year-old self-taught black artist and life-long resident of Anacostia, and Larry Lebby, a young man with a rural background. Robinson, at the age of 64, was given a highly successful retrospective exhibition at the Corcoran Gallery of Art. Robinson's work portrays the sunny landscapes of old Anacostia--rolling hills, tidy homes, colorful gardens and wire fences--and features celebratory scenes of his family life. The title of the show, "Here, Look at Mine," came from a joyful scene of his nine grandchildren seated around the dining room table proudly showing off their latest drawings. The lithographs and watercolors of Larry Lebby show a different view from a different perspective. Although the artists were from different generations and economic backgrounds, both emphasized social consciousness and spiritual kinship in their work by concentrating on family ties. This was followed by "Portraits in Black," a rare showing of the Harmond Foundation collection of portraits of famous blacks, owned by the National Portrait Gallery. Also in FY 1983 the exhibit "Through Their Eyes," the art of Lou and Di Stovall, a husband/wife team of printmakers, painters, and sculptors was presented.

The Anacostia Neighborhood Museum is producing a copy of "Black Wings"--the history of blacks in aviation for a FY 1984 opening in Anacostia and subsequent travel by Smithsonian Institution Traveling Exhibition Service (SITES). Also planned for SITES travel, following a FY 1984 opening and showing at the Museum, is a newly researched, written and designed version of a most popular traveling exhibition "Black Women--Achievements Against the Odds," in which little known figures are presented along with famous counterparts to offer an historical balance. A further accomplishment in FY 1983/1984 was production of a traveling version of "Mary McCloud Bethune and Roosevelt's Black Cabinet"--an exhibition originally produced by the Museum in commemoration of the centennial of FDR's birth, which was well received by both the media and the public.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funds are provided by an annual allotment to cover the salary and benefits costs of a woodcrafter. During FY 1984 and

FY 1985, this woodcrafter will work on the "Harlem Renaissance" exhibition, the production of "Black Wings" and the production of "Black Women--Achievements Against the Odds." Additional funds are provided from exhibit rentals, catalogue sales and donations, and are used to purchase supplies and materials to support the Museum's programs and community activities.

Restricted Funds - These are in the form of gifts from individuals, organizations and corporations and are designated for the general support of the Museum's programs.

ASSISTANT SECRETARY FOR PUBLIC SERVICE

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
FY 1983 Actual	12	656	18	834	-	212	-	175	-	-
FY 1984 Base /1	12	605	22	858	2	241	-	7	-	-
FY 1985 Estimate	12	622	22	1,007	2	240	-	10	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>12</u>	<u>0</u>	<u>0</u>	<u>12</u>
11 Personnel Compensation...	409	10	-	419
12 Personnel Benefits.....	43	-	-	43
21 Travel.....	6	-	-	6
23 Rent, Comm. & Utilities..	21	1	-	22
24 Printing & Reproduction..	38	2	-	40
25 Other Services.....	57	2	-	59
26 Supplies & Materials.....	22	2	-	24
31 Equipment.....	<u>9</u>	<u>-</u>	<u>-</u>	<u>9</u>
Total	<u>605</u>	<u>17</u>	<u>0</u>	<u>622</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of the Assistant Secretary for Public Service guides and supports the development of programs to advance the Institution's objectives in education, publication, information and folklife programs and keeps the Secretary informed and advised concerning Public Service programs and activities. In addition to the Office of Telecommunications and the Visitor Information and Associates' Reception Center (which are included in this line item), the programs and activities reporting to the Assistant Secretary for Public Service include the Smithsonian Institution Press, Smithsonian magazine, the International Center, the Office of Folklife Programs, the Office of Smithsonian Symposia and Seminars, and the Office of Elementary and Secondary Education. Further details on the latter three units are contained in the American Studies and Folklife Programs and the Academic and Educational Programs sections of the Special Programs chapter of this budget. No program increase is requested for FY 1985. Necessary pay of \$10,000 is required for existing staff and an amount of \$ 7,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. Immediate Office, Assistant Secretary for Public Service: With base resources of 5 workyears and \$247,000, the Office of the Assistant Secretary stimulates, coordinates, and supervises the activities of the Smithsonian's educational and public service programs, including the Office of Telecommunications, the Visitor Information and Associates' Reception Center, the Smithsonian Institution Press, the Smithsonian magazine, the Office of Elementary and Secondary Education, the Office of Smithsonian Symposia and Seminars, and the Office of Folklife Programs.

The Assistant Secretary for Public Service also serves as director of the newly established International Center, to be located in the Quadrangle. A detailed statement on the International Center is included in the Quadrangle Operations section in the Special Programs chapter of this budget.

II. Office of Telecommunications: With base resources of 5 workyears and \$206,000, the Office of Telecommunications assists in developing plans for Smithsonian policy and objectives in telecommunications, which serves as one of the Institution's major modes of public education and enlightenment. The Office also develops and produces films, television and radio programs for distribution to public and commercial broadcasting outlets, as well as to educational and civic organizations.

Major program series produced by the Office include "Here at the Smithsonian," an award-winning new series of video features; "Radio Smithsonian," a staple for public and commercial radio stations across the country; and "Smithsonian Galaxy," the popular radio feature series now reaching 255 stations. Premiering in January 1984, "Smithsonian World," a new Public Broadcasting Service series, is co-produced by the Smithsonian and WETA-TV. Films currently in production include "The Work of Peace," celebrating the 200th anniversary of the signing of the Treaty of Paris; "Screening the Future: Film and the Shape of Things to Come, 1902-1984," exploring the changing image of "the future" in American popular culture; and "Coral Reef Communities: Making Use of 400 Million Years of Evolution," documenting how man can protect and manage the complex ecosystems of tropical reefs.

"The Work of Peace," with funding provided as part of the FY 1983 appropriation, will depict the course of negotiations that led to the formal end of the Revolutionary War, the signing of the Treaty of Paris in 1783, and the launching of the United States as an independent nation. Production on the film is expected to be completed in the spring of 1984.

The Office of Telecommunications has received national and international recognition for its program series and films. Recent awards presented to the radio and television series include the Principal Radio Award of the Freedoms Foundation at Valley Forge (for "Radio Smithsonian" in 1982), the Gold Award of the International Radio Festival of New York (for "Smithsonian Galaxy" in 1982), and the Silver Award of the International Film and TV Festival of New York (for "Here at the Smithsonian" in 1982). Films that have been honored include "American Picture Palaces," a 1983 production documenting the "Golden Age" of movie theaters of the 1920s and 1930s, which received 12 awards including Best Film of the Festival from the Fourth International Festival of Architecture and Planning, the CINE Golden Eagle, the Red Ribbon from the American Film Festival, and the Gold Award of the International Film and TV Festival of New York; and "In Open Air: A Portrait of the American Impressionists," a 1982 production on the growth of Impressionist painting in America in the late 19th century, which received the CINE Golden Eagle and the Bronze Cindy from the Information Film Producers of America.

III. Visitor Information and Associates' Reception Center: With base resources of 2 workyears and \$152,000, the Visitor Information and Associates' Reception Center (VIARC) serves as the focal point for public information about the entire spectrum of the

Smithsonian's exhibitions, events, programs and activities. Established in 1970 primarily to provide information and reception services for Smithsonian National Associates, VIARC's charter has expanded to include responsibility for administering a range of centralized information and assistance programs serving the public, Associate members of the Institution, Smithsonian staff, volunteers and interns. Many of the Center's programs operate seven-days-a-week and involve the coordination and direction of large numbers of volunteers who constitute a primary source of support for the Institution's public information programs and for staff project assistance behind the scenes. These programs are administered through the Center's four service units: the Seven-Day Information Unit, the Information Outreach Unit, the Public Inquiry Mail Unit and the Staff/Volunteer Service Unit. A separate Information Resources Division compiles, coordinates and produces the variety of reference materials, information aids and publications which support the Center's activities.

Seven-day services include the Museum Information Desk Program through which a corps of 400 volunteer information specialists staff 14 desks in eight Smithsonian museums from 10 a.m. to 4 p.m. daily; and the Telephone Information Program which, operating from 9 a.m. to 5 p.m. daily, is the primary point of public telephone contact for information about the Institution, its exhibitions, programs and activities. This Program responds to well over 320,000 annual inquiries and produces 24-hour recorded information for Dial-A-Museum and Dial-A-Phenomenon.

The Information Outreach Unit includes the Center's Information Outreach Program, which works through the local, national and international tour and travel industry and the Institution's own network of outreach activities, to promote pre-visit education and National Associate membership. Group Information Services are provided through volunteer lecturers who, participating in the Center's Group Orientation Program, present a variety of 30-minute slide/lecture overviews of the Institution. Included are daily public programs, regularly scheduled programs for new Smithsonian employees and interns, and special prescheduled programs for tour and school groups; behind-the-scenes tours of the Smithsonian Institution Building--which outline its history, use and furnishings--are provided by the Center's Castle Docents on a regular weekend schedule; through the Mobile Information Program, brightly colored information carts are operated during summer months of peak visitation along the Mall's pedestrian walkways to supplement information services available in the museums.

The Public Inquiry Mail Unit serves as the research, response and referral point for the Institution's unsolicited public mail. Working independently and in cooperation with other Smithsonian bureaus, this unit produces a variety of substantive preprinted materials to respond to questions on popular topics; compiles and distributes a bimonthly sales reference list to aid the Institution's auxiliary activities in identifying the origin of sales products; and produces and promotes pre-visit orientation packages for the public and Associate members of the Institution. Some 40,000 pieces of mail are handled annually.

The Staff/Volunteer Service Unit operates the Independent Volunteer Placement Service (IVPS) which is the registration and placement program for the Institution's volunteers working behind the scenes, a work force currently some 800 strong. The IVPS responds to staff requests for short- and long-term project assistance by referring volunteers with the appropriate skills and experience. This program also organizes and coordinates special volunteer task forces to meet a variety of bureau and program office needs and conducts an annual Institution-wide volunteer survey which provides necessary statistical data and forms the basis for the Institution's annual acknowledgement of volunteer support.

This Unit also is responsible for the Intern Registration and Information Service which provides a registration, orientation and information program for the hundreds of

students receiving academic credit as Smithsonian interns each year, and the Special Magazine Files through which reduced rate National Associate memberships and gifts are made available to Smithsonian staff and volunteers. Some 6,800 memberships currently are fulfilled through this program.

In order to increase the Institution's capability to inform, orient and serve the millions of visitors to the Smithsonian each year, the Visitor Information and Associates' Reception Center currently is planning to develop and implement a multifaceted program to upgrade the different visitor services provided by the Institution. One facet of this plan is to establish a nationwide pre-visit education program that will coordinate VIARC's efforts, for the first time, with the Washington, D.C. and national travel and tourism industry. Also, it will make maximum use of existing Smithsonian outreach programs, such as the Office of Public Affairs, Office of Telecommunications, Smithsonian Institution Traveling Exhibition Service, Smithsonian magazine, and the National Associate Program. This comprehensive education program will improve the provision of information and assistance to visitors prior to their arrival in Washington, D.C. to ensure that they reap the maximum benefit from their Smithsonian experience while in Washington.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - I. Office of Telecommunications: These funds are provided by allotments which will support eight staff members in FY 1984 and FY 1985 along with expenses associated with the production of educational and informational materials for television, film and radio. In addition, a nominal amount of subscription fees are received to help cover distribution costs. The Office produces three ongoing series of programs which reach the American public regularly through radio and television. "Here at the Smithsonian" and "Radio Smithsonian" are financed partly by an allotment and partly by subscriber fees. "Smithsonian Galaxy" is being supported by an allotment in FY 1984.

II. Visitor Information and Associates' Reception Center: These funds are provided by allotments and are used primarily to support 16 staff members associated with the Center's work as the Institution's public service bureau responsible for the information and assistance activities described in the Program Statement.

Restricted Funds - Office of Telecommunications: A foundation grant enabled the Office to supervise production of the film, "Yorktown," commemorating the crucial American-French victory of 1781 (expenditures of \$175,000 in FY 1983, estimated expenditures of \$7,000 in FY 1984 and \$10,000 in FY 1985).

SMITHSONIAN INSTITUTION PRESS

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**		Amount	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	28	970	32	9,529	-	-	-	5	-	10
FY 1984 Base /1	29	1,055	32	11,207	-	-	-	-	-	-
FY 1985 Estimate	29	1,085	33	10,900	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>29</u>	<u>0</u>	<u>0</u>	<u>29</u>
11 Personnel Compensation...	835	22	-	857
12 Personnel Benefits.....	82	2	-	84
21 Travel.....	1	-	-	1
22 Trans. of Things.....	2	-	-	2
23 Rent, Comm. & Utilities..	8	-	-	8
24 Printing & Reproduction..	79	3	-	82
25 Other Services.....	20	1	-	21
26 Supplies & Materials.....	8	-	-	8
31 Equipment.....	<u>20</u>	<u>2</u>	<u>-</u>	<u>22</u>
Total	<u>1,055</u>	<u>30</u>	<u>0</u>	<u>1,085</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Institution Press functions as a university press, producing scholarly and specialist trade books on the Institution's behalf. It is responsible for the editing, design, production and distribution of research monographs, technical and scientific series, exhibit catalogues for Smithsonian museums, educational pamphlets and informational leaflets, prepared by Smithsonian scientists, historians, curators and other staff. SI Press also publishes popular illustrated books for sale primarily by direct mail to Smithsonian Associates, under the imprint Smithsonian Books; produces and sells phonograph records for the Institution's recording program; and acts as the official agent of the Smithsonian in the procurement of printing services, needed government forms, guides and instructions from the United

States Government Printing Office (GPO); and provides professional assistance to Smithsonian authors upon request. No program increase is requested for FY 1985. Necessary pay of \$24,000 is required for existing staff and an amount of \$6,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Smithsonian Institution Press, in its official capacity, serves as the publishing arm of the Smithsonian, meeting the Institution's requirements for quality book publication for both Federally-funded and Trust-funded activities. The Federal publication activity of the Press is a fundamental extension of the Smithsonian's basic research activities. The scientific, technological and historical series of monographs published by the Press make the results of research conducted by Smithsonian curators and staff experts available to major libraries, museums, scientific institutions, and interested members of the public throughout the United States and abroad. In addition, the Press edits and designs exhibit catalogues, educational pamphlets, and informational leaflets which serve the millions of visitors to the Smithsonian and the extension programs conducted all over the nation.

Serving as an academic press, it also publishes both scholarly and general trade books relating to the collections or research interests of the Smithsonian, using Trust funds. As a result, the Press undertakes the responsibility for securing quality manuscripts, as well as editing, designing, marketing and distributing these books domestically and internationally.

The Direct-Mail Books Division, formerly Smithsonian Exposition Books, publishes popular books based on Smithsonian collections and research, primarily for sale by direct mail to National and Resident Associate members of the Smithsonian and through the Smithsonian Museum Shops. The Recordings Division, formerly part of the Division of Performing Arts, produces and sells sound recordings relevant to the collections and performing arts interests and research and study efforts of the Smithsonian. Both the Direct-Mail Books and the Recording Divisions are financed completely with nonappropriated Trust funds. The consolidation of the SI Press and Exposition Books and the inclusion of the recording program has been facilitated by the centralization of such common functions as business management, production and marketing. One major benefit of this consolidation was the ability of the Press to absorb the additional responsibility for the recording program into its existing structure effectively and with minimum loss of time.

The Press also edits, designs and produces Smithsonian Year, the Institution's annual report to the Regents and to the Congress, as well as procuring and distributing within the Institution a variety of necessary manuals, reports and directories, including copies of Congressional materials and reports from government agencies.

Among the published results of basic scientific research produced by SI Press in FY 1983 and FY 1984 with Federal funds were Smithsonian Contribution series in a wide range of categories including: "A Scanning Electron Microscope Survey of the Epidermis of East African Grasses," (Botany); "Inclusions in the Allende Meteorite," (Earth Sciences); "Parallel Laminated Deep-Sea Muds and Coupled Gravity Flow--Hemipelagic Settling in the Mediterranean," (Marine Sciences); "The Geology and Paleontology of the Lee Creek Mine, North Carolina," (Paleobiology); and "Revision of the Clearwing Moth Genus Osminia," (Zoology). Federal publishing plans for FY 1985 will be determined primarily by the Press' client bureaus and offices, which depend in turn on the allocation of funds made available to these bureaus for publishing purposes.

SI Press books published with nonappropriated Trust funds in FY 1983 and planned for FY 1984 include: The Birds of China; The Muses Flee Hitler; Stagecoach East--Stagecoach Days in the East From the Colonial Period to the Civil War; National Parks, Development, and Conservation; U.S. Combat Flying Clothing; and A Beginner's Guide to

Wildflowers of the C&O Canal. Direct-mail books include The Thread of Life and Treasures of the Smithsonian. The recordings division produced "Big Band Jazz" and "American Popular Song."

During FY 1983, the Smithsonian book program continued to receive acclaim for its editorial, design and production capability with books receiving recognition from the National Association of Government Communicators (Blue Pencil Award); the Association of American University Presses (AAUP Book Show Award); and the Art Directors Club of Washington, D.C.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from sales of Trust-funded books, records, royalties, and special publishing services. They are used to support 32 full-time staff members in FY 1984 and 33 in FY 1985, as well as contractual editing, production, design, promotion, and distribution cost for records, scholarly and general trade publications and general-interest books which are published in connection with the Institution's research, collections, exhibitions and other programs.

The projected increase in expenditures between FY 1983 and FY 1984 mainly results from plans to develop and market to Smithsonian National Associates two major record packages: Classical Virtuosi and American Popular Song. These funds also support the necessary services required to develop, market, warehouse, and distribute records, scholarly, and general-interest books which are published in connection with the Institution's research, collections, exhibitions, and other programs.

Marketing plans for FY 1985 are predicated on the development of three major direct mail books, two new recording packages, and approximately 30 new titles by the scholarly press division. To accomplish marketing objectives, there will be a substantial increase in direct costs for surveys and market testing and for additional direct mail promotions. Production and operating costs have risen in response to higher prices from commercial suppliers, and service costs continue to increase; therefore, the long-range projections for the SI Press indicate a modest but steady growth for future years.

ASSISTANT SECRETARY FOR MUSEUM PROGRAMS

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTP**	Amount	FTP**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	22	808	-	6	-	93	3	181	-	1
FY 1984 Base /1	24	878	-	19	-	52	3	1,069	-	4
FY 1985 Estimate	24	904	-	6	-	43	3	315	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>24</u>	<u>0</u>	<u>0</u>	<u>24</u>
11 Personnel Compensation...	691	19	-	710
12 Personnel Benefits.....	68	2	-	70
21 Travel.....	14	-	-	14
23 Rent, Comm. & Utilities..	22	1	-	23
24 Printing & Reproduction..	12	1	-	13
25 Other Services.....	46	2	-	48
26 Supplies & Materials.....	11	1	-	12
31 Equipment.....	<u>14</u>	<u>-</u>	<u>-</u>	<u>14</u>
Total	<u>878</u>	<u>26</u>	<u>0</u>	<u>904</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of the Assistant Secretary for Museum Programs acts for the Secretary in coordinating and providing direction to the Institution's central museum support activities; maintains a liaison with national and international museum organizations and undertakes special studies for museum operations and methodologies. The Office also furnishes advice and technical assistance to other museums; performs studies on the effectiveness of museum exhibits, programs and management methods; conducts training seminars and workshops for museum personnel; and disseminates technical information on museum practices. Included in this line item are the Office of Museum Programs and the Office of International Activities. (During FY 1984, the Office of International Activities will be transferred organizationally from the Museum Programs to the Public Service Activity). The Office of Horticulture and the South Group Buildings Management, which report to this Office, are included in the Facilities Services section of this

budget request since their functions relate closely to those of the Office of Plant Services. No program increase for these offices is requested for FY 1985. Necessary pay of \$21,000 is required for existing staff and an amount of \$5,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. Immediate Office, Assistant Secretary for Museum Programs: With base resources of 7 workyears and \$347,000, this Office administers, oversees, reviews and supports the Office of the Registrar, the Conservation Analytical Laboratory, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Archives, National Museum Act, Office of Museum Programs, Office of International Activities, Smithsonian Institution Traveling Exhibition Service, Office of Horticulture, and the South Group Buildings Management.

In addition, the Office coordinates and supports projects related to the development and improvement of facilities, operational methods, and exhibition programs of the Smithsonian museums, including the Museum Support Center (MSC) and the Collections Management/Inventory Program. The Office has worked closely with the General Services Administration, the architects, and the museums that will occupy facilities of the Museum Support Center in the development of specifications for the storage equipment to be used, in the planning for the transfer of the collections, and the implementation of the operating requirements. The Office is coordinating the development of a conservation training program at the MSC to be administered by the Conservation Analytical Laboratory. The Office of the Assistant Secretary for Museum Programs also has administered the accelerated program of collections inventory begun in FY 1979 and will coordinate the process of refinement and reconciliation.

Within the museum profession, the Office works closely with museum organizations and professionals, both nationally and internationally, such as the American Association of Museums and the International Council of Museums, to support the enhancement of scholarly, exhibition, and educational functions of museums; to encourage the development and application of new techniques for museum administration and practices; and to establish and improve museum training programs, particularly in conservation.

II. Office of Museum Programs: With base resources of 12 workyears and \$334,000, the Office of Museum Programs conducts specialized training programs for museum personnel from American and foreign museums including programs designed particularly for the Native American community; arranges internships in museum practices and facilitates visits to the Smithsonian for museum professionals. The Office plans and conducts special conferences on museum matters and provides program supervision for the Museum Reference Center, which is the major library source for museological information in the United States. The Office also produces informational and audio-visual presentations on conservation and museum practices for distribution to museums and educational organizations. Moreover, the Office is currently undertaking a three-year study, funded by a grant from the Kellogg Foundation, to investigate how museums can increase their educational contributions to their communities.

The Museum Training Program offers workshops and seminars, taught primarily by Smithsonian staff, for individuals employed by museums throughout the United States and abroad. The courses concentrate on improved museum practices in such areas as management, design and production of exhibits, conservation awareness, educational programming, registration methods and automation, public relations and publications, audiovisuals, library and archival organization, curation and collections management. In FY 1983, 30 workshops attracted 550 museum professionals. The on-site program of nine workshops in 1983, conducted at no direct cost to the Institution, is being expanded to 12 in 1984 as more cooperating museum organizations request training opportunities closer to local museum sites and thus more readily available. Since 1977, more than 750 Native Americans (and their museum and cultural institutions) have been

served through workshops, publications, specially produced slide-tape programs and other technical assistance activities geared to the special needs of this community.

The audio-visual loan program is currently circulating 116 audio-visual training programs which have as their major emphasis the preventive care of collections. This is a unique service in the United States, and as interest in conservation grows, the demand for use of the programs increases annually.

In FY 1983, approximately 80 museum professionals and students from the United States and other countries participated in the museum practices internship program conducted by the Office. In cooperation with various bureaus and offices of the Institution, interns were placed with those Smithsonian units that could provide the experience appropriate for each individual. The number of such interns has been growing and is expected to increase through FY 1984 and FY 1985. A special museum careers orientation series for a District of Columbia multi-cultural high school program was conducted in FY 1983 and more than 40 individuals were accepted into the program. The Visiting Professionals Program was expanded during 1983 to accommodate more than 100 museum professionals from the United States and abroad who made short-term visits ranging from one day to one month at the Institution. These visits provide access to a variety of Smithsonian facilities, as well as to those of other museums in the United States. In FY 1983, the Office of Museum Programs, with funding from and in cooperation with the United States Information Agency, organized two 30-day tours of United States museums for foreign museum professionals. The first tour concentrated on museum education, and the second on museum administration. Two additional programs are being planned for FY 1984 and three are projected for FY 1985.

III. Office of International Activities: With base resources of 5 workyears and \$197,000, the Office of International Activities fosters and coordinates international aspects of Smithsonian research and museum programs. The Office serves the Institution's interests abroad through continuing liaison with agencies of the United States Government, and with foreign governments, international organizations and private institutions. In addition, the Office obtains passports and visas for Smithsonian travelers, assists in foreign arrangements and contacts to facilitate research and other official business, and provides assistance to foreign dignitaries, scholars and students participating in the Smithsonian programs in this country. During FY 1983, the Office provided advisory and informational services to more than 286 Smithsonian projects involving activities abroad. Since FY 1982, the Office has published a Handbook for International Activities to serve as a guide for Smithsonian personnel involved in international projects and also has initiated a quarterly newsletter to provide current information on research exchanges in foreign areas for all concerned staff.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Office of Museum Programs has two revolving Trust funds for training and for the audio-visual loan program to accommodate small fees for services. These funds are utilized programmatically for maintenance purposes only. A Trust fund was established to record the sale and the biennial revision of the Office of Museum Programs' publication Museum Studies Programs in the United States and Abroad. Recent allotments have been provided from the Smithsonian Institution's Women's Committee (in the amount of \$5,000) to produce a video tape on "Conservation Bookbinding," and from the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program to conduct a national workshop for Native American museum directors. An allotment of \$5,000 made it possible for the Office of Museum Programs to compile an inventory of all audio-visual programs produced by the Smithsonian for internal reference purposes at the Institution.

Restricted Funds - The Office of Museum Programs received a grant of \$1.1 million from the Kellogg Foundation in 1982 for a three-year project to "expand the educational

influence of museums." The purpose of the grant is to enable the Smithsonian to assume a leadership role in creating a network of museums in the United States to examine issues and provide means of implementation so that museums can increase their educational impact in their communities. All aspects of museum operations are being explored with decision-makers from museums and with representatives from other educational resources. Colloquia, regional workshops, community-resources workshops, residencies, and video tapes are being planned and organized to involve over 400 museums. Grants also were received from the Society of American Archivists (\$6,000) for a slide-cassette program on "Native American Archives," and from the Hazen Foundation (\$3,000) to support an intern from Ghana. Funds are being sought to support the "Treasures from the Shanghai Museum--6,000 Years of Chinese Art" exhibit in the Evans Hall (\$470,000 in FY 1984).

OFFICE OF THE REGISTRAR

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds		& Contracts	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	2	87	-	-	-	-	-	-	-	
FY 1984 Base /1	2	96	-	-	-	-	-	-	-	
FY 1985 Estimate	2	99	-	-	-	-	-	-	-	

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
11 Personnel Compensation...	75	2	-	77
12 Personnel Benefits.....	7	-	-	7
21 Travel.....	3	-	-	3
25 Other Services.....	7	1	-	8
26 Supplies & Materials.....	<u>4</u>	<u>-</u>	<u>-</u>	<u>4</u>
Total	<u>96</u>	<u>3</u>	<u>0</u>	<u>99</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of the Registrar is responsible for Institutional development, oversight and coordination of collections management policies, including advice to management concerning accountability procedures and information management techniques for all museum objects and specimens held by the Smithsonian. It is charged with overseeing cyclical collection inventories and inventory-related activities such as reconciliation of findings with existing records. No program increase is requested for FY 1985. Necessary pay of \$2,000 is required for existing staff and an amount of \$1,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - In 1976, traditional registration functions of the Office of the Registrar were decentralized and emphasis was shifted from record keeping to improvement of policies and practices in collections management. From the 1880s to 1976, the Office provided centralized registration services for only the Museums of Natural History and American History; but at the time of decentralization, its mission was

expanded to provide support for all Smithsonian bureaus engaged in the management of collections.

When collections inventory control was designated as an urgent Institutional priority, the Office developed the Smithsonian's basic inventory policy and subsequently was charged with overseeing baseline collection inventories in all Smithsonian museums from 1978 to 1983 and cyclical reinventories after that. This charge now encompasses reconciliation of inventory findings with existing records and enhancement of all records to provide improved accountability for collections. Meanwhile, the Office monitors collections management policies in the Institution's museums and provides coordination for the processing of policy documents. In further support of the activities, the Registrar's Office conducts seminar programs, initiated in FY 1978, in the information management aspects of collections management. Additional workshops on collections management also are held at least twice a year in cooperation with the Office of Museum Programs for museum professionals throughout the country. Other continuing responsibilities of the Office include coordinating the Smithsonian Registrarial Council, through which interbureau registrarial business is conducted and cooperative procedures are developed; and maintaining contact with national and international organizations concerned with the application of computers to collections management functions and also with other museums involved with the development of systems for such applications.

CONSERVATION ANALYTICAL LABORATORY

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTP**	Amount	FTP**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	19	892	-	-	-	-	-	-	-	-
FY 1984 Base /1	18	969	-	-	-	-	-	-	-	-
FY 1985 Estimate	18	998	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>18</u>	<u>0</u>	<u>0</u>	<u>18</u>
11 Personnel Compensation...	601	14	-	615
12 Personnel Benefits.....	59	2	-	61
21 Travel.....	25	-	-	25
22 Trans. of Things.....	5	-	-	5
25 Other Services.....	122	3	-	125
26 Supplies & Materials.....	57	3	-	60
31 Equipment.....	<u>100</u>	<u>7</u>	<u>-</u>	<u>107</u>
Total	<u>969</u>	<u>29</u>	<u>0</u>	<u>998</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Conservation Analytical Laboratory (CAL), established in 1963, advises and assists Smithsonian museums and other museums in the study, preservation and conservation of objects and artifacts of scientific, cultural and historical importance; conducts basic research in conservation, the physical characteristics of materials, the effects of environmental factors and chemical interaction on objects, and Archaeometry; administers the Conservation Training Program at the Museum Support Center; and provides workshops, seminars, and other opportunities for the dissemination of the latest knowledge in the field of conservation to museums and research professionals throughout the United States and the world. At the end of FY 1983, the Conservation Analytical Laboratory relocated from its facilities on the Mall to new facilities at the Museum Support Center. For FY 1985, the program increase for CAL is related to the operations of the Museum Support Center; details on the requested increase justification are in the Museum Support Center section of the Special Programs chapter of this budget. Necessary

pay of \$16,000 is required for existing staff and an amount of \$13,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Conservation Analytical Laboratory provides a centralized facility at the Smithsonian devoted to the research, application, and training in the comprehensive field of conservation. CAL conducts scientific examination of objects; treatment for protection and preservation; and analyses of objects to establish facts of interest to scientists and historians. Furthermore, CAL develops, records and provides data essential for a complete understanding of museum collections; advises on the environmental conditions within the Smithsonian museums where valuable objects are displayed or stored; and conducts and provides assistance for conservation training programs.

Conservation activities are carried out by three departments--Conservation Treatment, Conservation Science and Archaeometry. Conservation treatment is provided for objects that require specialized work that can not be done by the museums, especially cases that present special problems or must utilize more specialized equipment than is available in the museums. During FY 1983, CAL acted on 209 requests for conservation treatment and conservation science investigations from museums and other bureaus of the Institution. For Conservation Treatment, most noteworthy of the numerous objects treated were the corroded, fragile lantern with its red glass intact, raised from the sunken "Monitor," owned by North Carolina and scheduled for a traveling exhibition; a cast iron cannon from the Revolutionary War vessel, the "Defence," belonging to the Navy Memorial Museum; a 19th-century gilt necklace made of iridescent green beetles; a rare Chinese export ("hong") punch bowl; and President Lincoln's top hat.

CAL's unique combination of research and practical conservation work enables the knowledge gained from state-of-the-art scientific research to be applied to the actual treatment of objects. For example, the proper evaluation of a course of treatment for a particular object is determined in collaboration with the Department of Conservation Science. In addition, research projects are anticipated on the deterioration mechanisms of paper artifacts and their response to the commonly employed treatment method of water washing, and on the evaluation of adhesives commonly used to join furniture and wooden objects. Cooperation with the Department of Archaeometry will continue particularly in the autoradiography of paintings.

General preservation activities, such as fumigation of infested objects and environmental monitoring in various museums and bureaus, continue. In FY 1983, CAL conducted the fumigation work requested by five Smithsonian museums, undertaking 13 fumigation treatments. Moreover, CAL monitors the environmental conditions of collections in ten Smithsonian buildings, including the Cooper-Hewitt Museum in New York City, with the measurements recorded by 74 hygrothermographs located throughout the buildings.

Senior conservation staff increasingly have become involved in teaching specialized skills to interns and technicians working in Smithsonian museum conservation laboratories. In addition, the CAL staff continues to lecture at international and national meetings, and also to specialized audiences through conservation workshops administered by the Office of Museum Programs. Some of these have resulted in papers published in specialized journals. CAL's information group has continued to update its reprint file by adding about 2,000 items per year to its collection of approximately 11,000 reprints.

CAL applications of automation provide vital support for both statistical analysis of scientific data and for access to conservation reports. One significant example of this support is the availability of automated data bases with conservation reports and abstracts. CAL has direct access to the automated index of "The Art and Archaeology Technical Abstracts," maintained by the British Museum Research

Laboratory. Additional abstracts, gathered and prepared by CAL staff from national or local sources, are indexed by CAL by means of an optical reader system. It is anticipated that this data will be incorporated into an international data base on conservation and treatment.

Furthermore, the research and treatment reports written by CAL staff are edited carefully and key words and abstracts are prepared in order to insure the greatest use of this knowledge by other conservators. In developing key word lists, CAL has striven to employ those used by the "Art and Archaeology Technical Abstracts" and the International Centre for Conservation in Rome to assure that the retrieval of this data is compatible with the systems used in other data bases and to help facilitate the exchange of knowledge between different computer systems integrated into international networks of data bases.

In March 1983, as a result of efforts over the past three years by CAL and the Office of Information Resource Management, a new computer system was implemented to handle the increased volume of data more effectively. Also in FY 1983, abstracts of 200 conservation reports were added to the new on-line system, developed by Lockheed DIALOG System. In FY 1984 and FY 1985, new reports will be abstracted and the conversion to the DIALOG system will continue.

The Conservation Science Department continues in its established role as both a research and a service laboratory. Research activities focus on issues of broad concern to both conservators and other museum personnel while the service aspect of the Department consists of answering diverse queries whose common themes are technical studies of the Institution's collections and their preservation. Many "routine" analyses were conducted. For example, white specks growing on a fish stored in alcohol were found to be fat exuding from the fish. A white powder on 19th-century jewelry made from dried beetles, was discovered to be arsenic trioxide previously applied to arrest infestation by smaller beetles that had attacked the larger decorated beetles. Flaking paint from the Ape House at the National Zoo was determined not to contain lead or other toxic metals. Snowy material in a plexiglas jar containing a snake in alcohol was found to be plexiglas which had dissolved and reprecipitated.

Two extensively deteriorated objects of cellulose nitrate--one from New York and one from abroad--were documented thoroughly. Investigation continued of rapid corrosion of lead sheeting inside the roofs of museum buildings. Two examples of organic acids inducing corrosion of copper alloys were investigated: candlesticks affected by wax, and waxed copper plates with incompletely-removed printers' ink.

The move to the Museum Support Center not only provided new and less restricting facilities but also additional space to accommodate the installation of a gas chromatograph-mass spectrometer. This will greatly expand CAL capabilities in the analysis of complex organic materials, and open new fields of research. Precise characterization of organic archeological materials will provide more information to be used in establishing material sources, methods of material processing, and the use and provenance of artifacts. A library of "fingerprints" of different materials will be collected. In collaboration with other Smithsonian organizations, various new research topics can be initiated especially in the chemical taxonomy of plants and the analysis of native dyes. The projected upgrading of the gas chromatograph-mass spectrometer and other scientific instrumentation will enhance collaboration between the departments of Conservation Treatment, Conservation Science and Archaeometry.

The field of Archaeometry integrates the natural science analysis of objects with their archeological, anthropological, art historical and cultural backgrounds. It provides curators, archeologists and historians with basic research data concerning date, attribution and technologies of earlier production methods. The work of the

Archaeometry staff of CAL is complemented by post-doctoral fellows, visiting scientists and research associates in Archaeometry. In addition to working in CAL laboratories, fellows, research associates and visiting scientists work in other laboratories which are appropriate to the nature of the research being performed, including those at the National Bureau of Standards, the United States Geological Survey and the Department of Mineral Sciences of the National Museum of Natural History/Museum of Man. These fellowships allow post-doctoral candidates the opportunity to bring their specialized training and interests to study problems associated with archaeometric research. Two such fellowships were awarded in FY 1983. These archaeometric research studies, which cover a variety of fields and the use of the resources of both Smithsonian and other institutions' collections, are often long-range in scope. They present further depth of insight and new avenues of investigation as gaps are filled with the available data. Thus, work continues on the source of early iron blooms found in the vicinity of Baffin Island, Canada and on ceramics (3500 B.C.) from Tel el Malyan, Iran. New work, accomplished in coordination with the Department of Conservation Treatment, includes neutron-induced autoradiography of paintings, particularly those by the American artist Thomas Wilmer Dewing. Further work includes studies of scoriae from metal working areas and obsidian from Tel el Malyan (adding a further dimension to the ceramic studies), and studies of 15th- and 16th-century production of Spanish Majolica and of nephrite artifacts from sites in Labrador.

A major aspect of CAL's work in Archaeometry involves participation in national and international meetings. CAL co-sponsors a regular series of seminars in cooperation with the National Bureau of Standards. Additionally, six papers were presented at four different international scientific meetings. The 24th International Archaeometry Symposium, organized by two CAL staff members, will be held at the Smithsonian May 14-18, 1984. The five-day symposium, including sessions on Prospection (identification of the features of a site by physical techniques), Provenance of objects, Ancient Technology, and Dating of organic and inorganic materials, will be attended by 200-300 participants from around the world.

To a considerable extent, the damage that occurs to works of art can be minimized by museum staffs if they are thoroughly knowledgeable about environmental requirements and understand the various processes that result in the degradation of objects. To provide for a better informed staff and to supplement guidelines and personal consultations, CAL continues to offer a series of 80 videotaped orientation lectures each fall and winter for Smithsonian Institution staff; eight persons received certificates of completion during FY 1983. In addition, CAL staff frequently participate as faculty in Office of Museum Programs' workshops and take an active part in meetings of the Washington Conservation Guild and American Institute for Conservation.

The Director of CAL has responsibility for the Smithsonian Training Program in Conservation which will be initiated in 1985 at the Museum Support Center and which will utilize CAL and other Smithsonian bureaus' staff and material resources. The curriculum offered by the Training Program will be conducted in association with area universities. In order to facilitate these actions and maintain coordination with other training and conservation work under CAL's jurisdiction at the MSC, the facilities for CAL were relocated to the Museum Support Center at the end of FY 1983. A more detailed explanation of the new Conservation Training Program and its resource requirements is included in the Museum Support Center Equipment and Operations section in the Special Programs chapter of this budget.

SMITHSONIAN INSTITUTION LIBRARIES

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds		& Contracts	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	91	3,692	8	211	-	41	-	4	-	-
FY 1984 Base /1	92	3,701	9	290	-	-	-	4	-	-
FY 1985 Estimate	92	4,030	9	311	-	-	-	4	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>92</u>	<u>0</u>	<u>0</u>	<u>92</u>
11 Personnel Compensation...	2,346	70	-	2,416
12 Personnel Benefits.....	217	7	-	224
21 Travel.....	17	4	-	21
22 Trans. of Things.....	2	2	-	4
23 Rent, Comm. & Utilities..	45	-	-	45
24 Printing & Reproduction..	157	4	-	161
25 Other Services.....	259	11	80	350
26 Supplies & Materials.....	425	4	-	429
31 Equipment.....	<u>233</u>	<u>27</u>	<u>120</u>	<u>380</u>
Total	<u>3,701</u>	<u>129</u>	<u>200</u>	<u>4,030</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Institution Libraries (SIL) is an important American research library, providing information services to support the research, exhibit, public service and education programs of the Institution and the research of scholars outside of the Smithsonian. In addition, SIL provides services to the public through exhibit, publication, research, internship and seminar programs. For FY 1985, an increase of \$200,000 is requested to compensate for the escalating costs of journal subscriptions and book purchases (\$120,000); and to initiate a program to attain bibliographic accountability for the approximately 35,000 uncatalogued books in the SIL collections (\$80,000). Program increases requested for the SI Libraries related to the Museum Support Center and Quadrangle Operations appear in the Museum Support Center Equipment and Operations and Quadrangle Operations sections of this budget request.

Necessary pay of \$77,000 is required for existing staff and an amount of \$52,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Smithsonian Institution Libraries serves the Institution's museums and the public through support of Smithsonian research, curatorial publication, and administrative activities; through direct participation in the building of national bibliographic networks; and through programs of publications, exhibition, loan, and information services. Its collections of approximately 900,000 volumes and over 20,000 serial subscriptions are available to Smithsonian and outside scholars through a system of 36 branch libraries located in the Washington, D.C. area and at other locations, including the Smithsonian Astrophysical Observatory (Massachusetts and Arizona), the Cooper-Hewitt Museum (New York City), and the Smithsonian Tropical Research Institute (Panama). In addition, SIL coordinates the purchase of all books, journals, and related materials for the Smithsonian. Fundamental to SIL planning is the use of electronic technologies for information transfer and resource sharing. SIL contributes its cataloguing to a national data base shared by 6,000 libraries. Intensive planning has taken place during the past several years toward adopting currently available computer technology to develop and implement, during FY 1984-FY 1986, a single automated system that will accommodate all library services, including acquisition, cataloguing, information retrieval, transmission of library data between branch libraries, and other information management services.

The SIL is comprised of three operational divisions: Collection Management, responsible for selection, preservation, and housing of library collections essential to Smithsonian work; Bibliographic Systems, responsible for acquisitions, automated control of SIL collections and for providing standard descriptions of all holdings; and Research Services charged with direct, individual assistance to and interpretation for the scholarly clientele of the Libraries. Also, through centralization of certain operations, including an interdisciplinary reference/information center, an acquisitions and cataloguing division, a consolidated administrative staff and a conservation laboratory, the SIL has achieved greater systems and cost efficiency. Branch libraries housed within the museums of the Institution provide direct services to researchers and other scholars through pertinent book collections and specialized reference services.

Collections Management - This function includes selection, deacquisition, cataloguing, conservation, space planning, and determination of collections management policies for the SIL. A Collection Development Policy Committee reviews current practices in book and journal selection. The SIL's book conservation program, one of the finest in the United States, is complemented by a Book Conservation Laboratory responsible for preserving the most valuable of SIL's materials from the deterioration which has resulted from improper storage conditions. In addition, SIL is exploring inexpensive ways to preserve all its holdings, including a mass deacidification project.

SIL's collection resources are supplemented by borrowing books and journals from other research libraries. However, when this is done on a large scale, the quality of research declines as researchers need primary materials at hand for longer periods. Although the Smithsonian Libraries borrows extensively from the Library of Congress and other libraries, Smithsonian researchers must be able to depend on the strength of SIL's own collections to satisfy their primary research needs.

In order to fulfill its mission as an important American research library, the Smithsonian Institution Libraries must build on the strength of its collections, fill gaps in its holdings in research fields of traditional and developing Smithsonian competence, and take full advantage of the increased efficiency and technological potential of automation in library operations. However, comparison with other similar

academic institutions reveals that the collections are not adequate to support the full scope, depth and breadth of research undertaken by the Institution. During the next five years, the goal of the SI Libraries is to achieve parity with comparable research institution libraries in order to provide maximum support for the Institution's research programs.

Bibliographic Systems - Since 1974, SIL has made available information on its current cataloging to a nationally available electronic data base--the Online Computer Library Center, Inc. (OCLC), thus sharing with other libraries in the reduction of cataloging costs. Since FY 1981, this electronic data is no longer printed onto traditional catalogue cards but, rather is directly copied from the computer machine-readable format onto microfiche, eliminating maintenance of 36 card catalogues. By the end of FY 1984, SIL will have entered some 250,000 of its bibliographic records into the national data base and which will become available through an on-line catalogue as part of the new automated system.

Research Services - As a large research library, the SIL provides a broad range of reference services to users and is developing automated reference services as they become cost effective. Since FY 1978, SIL has employed on-line data bases for the arts (e.g., Art Modern), the sciences (e.g., Chemical Abstracts) and the humanities (e.g., History Abstracts). These up-to-the-minute searches shorten the time it takes to do research. With more than 250 on-line data bases in use, this program is becoming an increasingly important part of SIL reference work.

Frequent sharing of collections between the Smithsonian and other research libraries continues. Since FY 1980, this has been accomplished via the electronic mail feature of the OCLC system. As older SIL manual records have been added to the OCLC electronic data base, the quantity of items requested by other libraries has increased. During FY 1983, library staff answered over 112,000 reference inquiries, of which approximately one-quarter required extensive assistance to the researcher, including on-line searches. In addition, over 32,000 requests for use of materials in the collection were made by Smithsonian researchers and over 20,000 loans were made to other libraries through the Interlibrary Loan system.

Outreach - Additional attention has been focused by the SIL on its national and international responsibilities, especially in the areas of exhibitions and seminars. A translation program administered by SIL with Special Foreign Currency Program funds has made available to scholars some 900 otherwise inaccessible scientific monographs.

In FY 1983, exhibitions were presented on the early lithography in the United States, the ornithological works of Thomas Brown, the SIL's large American trade literature collections, and on recent outstanding gifts to the SIL. A regular program of exhibits also is planned for the future. Also, in FY 1983 SIL sponsored the following lectures and seminars: M. Henderson on "Library Standards"; P. Weimerskirch on "Beginnings of Lithography in America"; and "The Use of American Trade Literature Collections" by Smithsonian and Eleutherian Mills Historical Library experts.

Outreach occurs, of course, through regular reference and loan services provided to other institutions. For example, in FY 1983 the SIL's Museum Reference Center responded to over 2,000 inquiries.

EXPLANATION OF PROGRAM INCREASE - For FY 1985, an increase of \$200,000 is requested to compensate for the escalating costs of journal subscriptions and book purchases (\$120,000); and to initiate a program to attain bibliographic accountability for the approximately 35,000 uncatalogued books in the SIL collections (\$80,000). Program increases requested for the SI Libraries related to Museum Support Center and

Quadrangle Operations appear in the Museum Support Center Equipment and Operations and Quadrangle Operations sections of the Special Programs chapter of this budget.

Journal Subscriptions and Book Purchases (\$120,000): An amount of \$120,000 is needed to cover rising book and journal acquisition costs due to inflationary pressures in the publishing industry. The FY 1984 projected cost of book and journal purchases totals \$718,000. Currently, the average annual inflation factor in the publishing industry is 15 percent for journal subscriptions and 17 percent for book purchases. Moreover, the cost of SIL subscriptions to technical and academic journals have increased at a much higher rate than the average. Among the more dramatic increases in subscription costs from 1982 to 1983 have been: the Journal of American Folklife (40%), American Zoologist (42.8%), Marine Chemistry (51.8%), Journal of Archaeological Science (60%), Precambrian Research (61.2%), and Foreign Policy (66.6%). In fact, some very specialized journals have doubled in cost since 1982 including Environmental Biology of Fishes (96.4%), Ocean Development and International Law (100%), Chemical Abstracts -- Biochemistry Sections (100%), and Atomic Data and Nuclear Data Tables (124.3%). These rising journal prices have contributed also to the erosion of funding available for book purchases, compounding the loss of purchasing power for book collections. For example, journal subscriptions in FY 1979 accounted for 45.9 percent of actual SIL expenditures for collections purchase; by FY 1982, the costs of subscriptions had risen to 55.8 percent of the total acquisitions budget.

Should resources for book and journal purchases not keep pace with price increases for these essential research materials, the negative impact of this loss will have severe short-term and long-term consequences. In the short-term, research using SIL collections would be more difficult, time-consuming and less efficient, since the most recent literature would not be available to scholars and researchers in their fields. Rather, they would have to depend on finding large portions of the research material they need from different libraries in Washington, D.C. and other areas across the country. In the long-term, failure to attain adequate funding for book and journal purchases would have the cumulative effect of severely weakening virtually all research capabilities of the Smithsonian. It would create irreparable gaps in the Libraries' holdings in major research fields, especially those that are rapidly expanding or still developing, jeopardizing the Smithsonian's role as an outstanding research institution.

Contractual Services for Cataloguing (80,000): As part of a comprehensive five-year program to achieve parity with comparable research institution libraries, the Smithsonian Institution Libraries has increased efforts to solve collections management problems. One of the most pressing of these problems is the need to attain complete bibliographic accountability for portions of the collection that have not been completely catalogued. These include approximately 35,000 volumes, including 9,000 rare books, representing many disciplines such as Numismatics, Philatelics, Ornithology, Astrophysics, and the History of Science. Many of these books, received over the years as gifts, had not been subject to the normal acquisitions process through which cataloguing is kept current.

With minimal or no bibliographic accountability for these books, their use in research is severely limited because they are not readily found through the normal search of the library catalogue, and their location may be uncertain. Furthermore, once catalogued, these books are less likely to be misplaced or stolen as identifying marks to show SI Libraries ownership are applied during the cataloguing process.

In the case of the rare books, such as those received for the Dibner collection or gifts from other sources, no cataloguing has been accomplished except for brief checklists to insure their security. The cataloguing process for rare books is particularly complex because it involves not only the identification of title and subject

and other basic publishing information, but also the total collation of the book to determine its bibliographic history. The complete cataloguing of rare books is necessary to allow scholars to know how the state of each copy differs from the state of other copies of the same work. Consequently, this process is comparable to the cataloguing of museum objects.

Cataloguing involves a physical description of the item, which can be quite complex in the case of rare books, and a detailed narrative of its subject matter and contents. The bibliographic information is then entered into a data base which can be accessed by research scholars at the Smithsonian or those of other institutions. A book call number is assigned to the volume, which is then labelled and shelved in the proper stack location. The cost of cataloguing a volume is currently \$20 per book; the specialized cataloguing required for rare books is \$35 per volume. While the cataloguing of these books is estimated to cost over \$900,000, the requested increase of \$80,000 would enable the SI Libraries to begin processing in FY 1985. It is anticipated that additional resources will be sought in future years to continue this important work.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided by allotments and are used primarily to support nine full-time positions and related support costs including supplies, book binding and training.

Restricted Funds - These are provided through gifts and grants from individuals, foundations, endowments, organizations and corporations for specific purposes. For example, awards from the Seidell Endowment Fund are being used to supplement the cost of conversion of traditional catalogue cards to a machine-readable format and to publish a catalogue of the manuscripts in the Dibner Collection. Gifts from the Dibner family are being used to establish stipends for research on the Dibner Collection.

OFFICE OF EXHIBITS CENTRAL

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds		Funds	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	42	1,367	-	-	-	-14	-	-	-	-
FY 1984 Base /1	42	1,483	-	-	-	4	-	-	-	-
FY 1985 Estimate	42	1,521	-	-	-	2	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>42</u>	<u>0</u>	<u>0</u>	<u>42</u>
11 Personnel Compensation...	1,175	26	-	1,201
12 Personnel Benefits.....	118	3	-	121
21 Travel.....	3	-	-	3
25 Other Services.....	30	2	-	32
26 Supplies & Materials.....	107	5	-	112
31 Equipment.....	<u>50</u>	<u>2</u>	<u>-</u>	<u>52</u>
Total	<u>1,483</u>	<u>38</u>	<u>0</u>	<u>1,521</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of Exhibits Central (OEC) provides design, production and installation services for a wide variety of exhibitions and exhibit-related programs for Smithsonian bureaus and for museums or program offices that do not have, or have limited, internal exhibit production capabilities. The OEC provides a number of specialized or supplementary exhibition services to all bureaus and offices. No program increase is requested for FY 1985. Necessary pay of \$29,000 is required for existing staff and an amount of \$9,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - OEC provides professional services to design, edit, fabricate, produce, install, and maintain museum exhibitions and related products. These services greatly expand the resources of Smithsonian units that do not have full-time exhibits staff, and OEC supplements the capabilities of the exhibit departments at all Smithsonian

museums. Services are provided depending on the specific need of the requesting unit, from a complete exhibition to the production of a single component. During exceptionally busy periods, OEC will consult and refer work to other production sources. Relying on its long record of involvement in all types of public presentations at the Institution, OEC provides broad and in-depth experience in the planning and preparation of museum exhibitions.

Since its establishment in 1972, OEC has designed and produced between 20 and 25 traveling exhibitions a year for the Smithsonian Institution Traveling Exhibition Service (SITES), has provided services for every Folklife Festival and has served as faculty in all Office of Museum Programs Workshops for Museum Professionals on exhibitions and exhibit-related specialties. In-house, hands-on training continues to be provided for qualified interns sponsored by universities and museums in the United States and abroad. OEC staff are invited regularly to consult with or participate in training courses at other museums. On a time available basis, OEC also provides advice to many other organizations on exhibition and exhibit-related matters--including the White House, the Office of the Architect of the Capitol, the Supreme Court, the Federal Bureau of Investigation, the United States Information Agency, the Children's Museum of Washington, and others.

OEC schedules all projects months in advance; major, complex projects require up to two years' lead time. Approximately 250 separate projects are completed each year. All projects are recorded, and hourly and dollar expenses accounted for and reported quarterly. OEC is now using in-house computer services to record all accounting procedures. Design and administrative offices, a cabinet shop, spray paint shop, sheet plastic shop, graphic production shop, and a highly sophisticated model shop now are located at 1111 North Capitol Street. The freeze-dry lab is being relocated there in the near future, further consolidating OEC resource capabilities.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are provided by tuition fees received from local universities; proceeds from the sale of motion picture film prints sold at cost to museums, libraries and related educational organizations; sales of the OEC book A Freeze-Dry Manual through the Smithsonian Institution Press; and reimbursements from internal Smithsonian units. These funds are used to purchase supplies, materials and services in support of OEC activities, to defray costs associated with special events and, as needed, to supplement a portion of travel expenses associated with consultation with other museum professionals.

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	7	313	19	1,375	-	71	3	689	-	4
FY 1984 Base /1	7	298	21	1,354	-	-	7	2,035	-	-
FY 1985 Estimate	7	310	23	1,450	-	-	6	1,148	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>7</u>	<u>0</u>	<u>0</u>	<u>7</u>
11 Personnel Compensation...	172	7	-	179
12 Personnel Benefits.....	19	1	-	20
21 Travel.....	8	-	-	8
22 Trans. of Things.....	57	4	-	61
25 Other Services.....	11	-	-	11
26 Supplies & Materials.....	1	-	-	1
31 Equipment.....	<u>30</u>	<u>-</u>	<u>-</u>	<u>30</u>
Total	<u>298</u>	<u>12</u>	<u>0</u>	<u>310</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) offers traveling exhibitions covering a wide range of subject matter in the fields of art, design, technology, history, science, anthropology, education and the environment. These include exhibitions from the Smithsonian's collections as well as those organized and loaned by numerous private collectors, foreign governments, museums and other organizations throughout the world. Necessary pay of \$8,000 is required for existing staff and an amount of \$4,000 is sought to compensate for the effects of inflation in non-salary areas of expense. Also for FY 1985, there are increases requested associated with the Quadrangle which appear in the Quadrangle section of this budget presentation.

PROGRAM - SITES currently is in its 31st year of providing exhibition services to qualifying organizations in the United States as well as abroad. The exhibitions are

complete programs accompanied by curatorial and registrarial information, handling instructions, technical information, public affairs materials, suggested educational activities, and in many instances, catalogues. The Service is the largest of its kind in the United States and provides a broad program encompassing the diverse disciplines and subject matter represented in the collections and museums of the Smithsonian Institution. SITES is an authority on the complex, multi-faceted operations of traveling exhibitions and provides continuous professional assistance to the museum field on a variety of topics including shipping, insurance, contract matters, installation techniques, upgrading space for exhibitions, and security.

SITES shows are seen by millions of people each year through local museums, galleries, and educational and cultural institutions. SITES also has become an essential element in the program and resource planning of thousands of exhibition-sponsoring organizations. Organizations benefit directly from the traveling exhibitions by being able to book an exhibit for a fraction of the cost that would be required were they to develop the exhibition themselves. The Federal support received by SITES allows exhibitions to be developed, toured and provided to these organizations at affordable costs. During FY 1983, an average of 114 shows was on tour at any given time. News of these shows reached the over 7,000 institutions on SITES' mailing list through the annual catalogue (UPDATE), the quarterly newsletter (SITELINE) and special mailings prepared by SITES.

During FY 1983, 30 new exhibitions joined SITES' program, of which 24 contained original objects, four were panel exhibits and two were poster panel exhibits. There was a total of approximately 450 bookings of SITES exhibitions, attended by an estimated seven million persons in 44 states, in addition to Canada, Puerto Rico, European countries and the Orient. It is expected that the number of exhibitions on tour again during FY 1984 will average 120.

Federal assistance received by SITES is essential for achieving one of the goals of the Smithsonian Institution Traveling Exhibition Service, which is to assure that fees paid for shows remain within the budgetary reach of participating museums and galleries. SITES will be able to maintain 47 exhibitions during FY 1984 that rent for \$1,000 or less. This target makes it possible for hundreds of potential exhibitors with limited financial resources to present exhibits of high quality. It is precisely those organizations that benefit most from Smithsonian traveling exhibitions, for they generally lack their own exhibit design and production capabilities. SITES continues to receive an average of 200 requests for information monthly. With a growing number of organizations drawing on SITES resources, and with high costs placing a severe burden on museums throughout the country, the need for well-developed, low-cost exhibitions is more necessary than ever.

SITES currently is producing "The Art of Cameroon," a major show which opens February 1, 1984 in the Evans Hall Gallery in the National Museum of Natural History/Museum of Man. Another major show produced by SITES, "The Precious Legacy: Judaic Treasures from the Czechoslovak State Collections," was seen by over 108,000 viewers while in the Evans Hall Gallery during November and December 1983. This exhibition will continue its tour in Miami, Fla., New York, N.Y., New Orleans, La., Detroit, Mich., and Hartford, Conn. In addition, a major exhibition of Syrian antiquities under the title "From Ebla to Damascus" is in the planning stages during FY 1984, and it will begin its tour during FY 1985. The exhibit "American Porcelain" will be touring throughout the Orient through FY 1984, and will return to the United States during early FY 1985. The United States Information Agency has sponsored the museums showing this exhibition, contributing directly to those institutions for participation fees and shipping.

New Exhibitions

Based on Smithsonian Sources

FY 1984: "The Artist and the Space Shuttle"; "Building the Brooklyn Bridge"; "Family Folklore"; "In Touch: Printing and Writing for the Blind in the Nineteenth Century"; "Matchesafes"; "Sculpture: Exploring Three Dimensions."

FY 1985: "Mathew Brady Photographs from the National Portrait Gallery's Meserve Collection."

Based on Other Sources

FY 1984: "America's City Halls"; "The Art of Cameroon"; "Beaumont Newhall: A Retrospective"; "Biblical Paintings of J. James Tissot I"; "Biblical Paintings of J. James Tissot II"; "Center Space: Pueblo Indian Architecture"; "Flowering of Science: Plants from Captain Cook's First Voyage, 1768-1771"; "Jack Lenor Larsen: 30 Years of Creative Textiles"; "Master Drawings from the National Gallery of Ireland"; "Native Harvests: Plants in American Indian Life"; "The Precious Legacy: Judaic Treasures from the Czechoslovak State Collections"; "Southeastern Potteries"; "South of Winter: Scenes from Arkansas Wildlife Refuge"; "World Print IV"; "Eva Zeisel: Designer for Industry"; "The Long Road Up The Hill: Blacks in the U.S. Congress."

FY 1985: "American Artist Immigrant Experience, 1930-1985"; "From Ebla to Damascus"; "The Pottery and Crafts of Newcomb College."

The following bookings were scheduled during FY 1983, by state:

Alabama	4	Missouri	14
Alaska	6	Montana	2
Arizona	2	Nebraska	1
Arkansas	1	Nevada	1
California	27	New Hampshire	1
Colorado	12	New Jersey	6
Connecticut	6	New Mexico	8
Delaware	3	New York	27
Florida	32	North Carolina	8
Georgia	16	Ohio	21
Illinois	22	Oklahoma	5
Indiana	5	Oregon	4
Iowa	7	Pennsylvania	15
Kansas	13	Rhode Island	1
Kentucky	3	South Carolina	3
Louisiana	7	Tennessee	11
Maine	2	Texas	32
Maryland	16	Virginia	6
Massachusetts	7	Washington State	5
Michigan	15	West Virginia	5
Minnesota	6	Wisconsin	8
Mississippi	8	District of Columbia	25

Total: 404 cities served in 43 states and in the District of Columbia with 429 exhibits, and 25 exhibits going to foreign countries.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are derived from participation fees collected from museums, universities, historical societies and other users of the traveling exhibitions. These funds, supplemented by an allotment, support 21 positions and virtually all exhibit development costs including publications, materials, outside specialists and contractual services.

Restricted Funds - Funds are provided in the form of gifts and foundation grants from individuals, organizations and corporations for specific purposes. During FY 1983, several grants were received: from United Technologies for the "Renaissance of Islam" exhibit; from Pepsico, Saks/Jandel, the Armand Hammer Foundation and the Allbritton Foundation for the exhibition "American Impressionism"; from the Barra Foundation for "An American Icon: the 18th-century Image of George Washington" exhibit; from the Mobil Oil Corporation for "The Art of Cameroon" exhibition; from Aramco for "Traditional Crafts of Saudi Arabia"; from Sohio for the show "Inua: Spirit World of the Bering Sea Eskimo"; from Project Judaica for the complete development of the exhibition "The Precious Legacy: Treasures from the Czechoslovak State Collections"; and from the Lion's Club and the Perkins Institute for the Blind for "In Touch: Printing and Writing for the Blind in the Nineteenth Century" exhibition.

Major funding is expected to continue during FY 1984 for the development of important shows. Champion International Corporation is funding "Yesterday's Tomorrows: Past Visions of the American Future"; the Allbritton Foundation and the Armand Hammer Foundation are considering support for the exhibition "Reflections of the Land, American Painting of the 19th and 20th Centuries." It also is anticipated that major corporate support for "Hollywood - Legend and Reality" will be forthcoming in FY 1984. SITES is seeking funding from other corporations through the Institution's Office of Membership and Development to produce the following exhibits: "From Ebla to Damascus" and "Samuel Bing."

SMITHSONIAN ARCHIVES

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTP**	Amount	FTP**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	14	442	2	62	-	1	-	-	-	-
FY 1984 Base /1	15	506	5	128	-	-	-	-	-	-
FY 1985 Estimate	15	523	5	150	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>15</u>	<u>0</u>	<u>0</u>	<u>15</u>
11 Personnel Compensation...	384	12	-	396
12 Personnel Benefits.....	41	1	-	42
21 Travel.....	4	-	-	4
22 Trans. of Things.....	1	-	-	1
24 Printing & Reproduction..	3	-	-	3
25 Other Services.....	52	2	-	54
26 Supplies & Materials.....	17	1	-	18
31 Equipment.....	<u>4</u>	<u>1</u>	<u>-</u>	<u>5</u>
Total	<u>506</u>	<u>17</u>	<u>0</u>	<u>523</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Smithsonian Institution Archives is the official repository for papers of historic value about the Smithsonian and the fields of science, art, history and the humanities. Its holdings, forming a valuable resource for scholars working on the history of science and other areas of traditional Smithsonian interest, are available to all qualified researchers. Moreover, the Archives provides archival and records management services to support the research, collections management, educational, and administrative functions of the Institution. No program increase is requested for FY 1985. Necessary pay of \$13,000 is required for existing staff and an amount of \$4,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Smithsonian Archives serves as the official Institutional repository for official records, specimen-related records and the papers of distinguished

research staff, and provides access to these for administrators, scholars and scientists. The Archives is responsible for a central research repository, an off-Mall records storage center and centralized information systems for archival documentation dispersed throughout the Institution. In FY 1983, the third edition of the Guide to the Smithsonian Archives was published, describing the official records, manuscript collections and research materials accessioned and prepared for general use in the Archives.

During FY 1983, the Archives processed some 55,900 documents for research use, and responded to 1,126 reference requests. Of these, 595 were from Smithsonian administrators or scholars and 531 from outside scholars. In addition, 532 retrievals were made from the United States National Museum accession records.

The Archives accessioned some 1,061,900 documents in FY 1983, bringing its total holdings to over 16,830,000 documents. Major transfers during the year were received from the Office of the Secretary, the Assistant Secretary for Museum Programs, the Assistant Secretary for Science, the National Zoological Park, the National Museum of American History, and the Hirshhorn Museum and Sculpture Garden. The Archives' records management program disposed of 446,000 documents of no historical or legal value in FY 1983. Microfilming of Smithsonian records continued with 52,190 images processed during the year.

Archives and records management programs were established for the Office of the General Counsel and the Office of Audits. Work also was begun in the Office of Information Resource Management, the Office of Smithsonian Symposia and Seminars, the Smithsonian magazine, and the National Museum of African Art. Programs were continued in the National Air and Space Museum, the National Museum of American History, the Hirshhorn Museum and Sculpture Garden, the National Museum of American Art, and the Cooper-Hewitt Museum.

During FY 1984, the Archives plans to work on archives and records management programs for the National Air and Space Museum, the Office of Information Resource Management, the Office of Smithsonian Symposia and Seminars, the National Zoological Park, the Smithsonian Environmental Research Center, the Office of Equal Opportunity, and the Archives of American Art, and plans to publish a general records schedule handbook for the Institution. In FY 1985, the Archives will make a major effort to establish archives and records management programs in the Office of Fellowships and Grants, the Office of Membership and Development, the Office of American Studies, the Office of Folklife Programs, the Office of Plant Services, and the Anacostia Neighborhood Museum.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are provided by allotments and are used to cover salaries of an archivist and an archives technician, and various support and publishing costs. Funds also will be provided in FY 1984 and in FY 1985 for the publication of the Finder's Guide to Photographic Collections in the Smithsonian Institution.

NATIONAL MUSEUM ACT

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	3	777	-	-	-	-	-	-	-	-
FY 1984 Base /1	3	788	-	-	-	-	-	-	-	-
FY 1985 Estimate	3	789	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
11 Personnel Compensation...	63	1	-	64
12 Personnel Benefits.....	6	-	-	6
21 Travel.....	9	-	-	9
24 Printing & Reproduction..	7	-	-	7
25 Other Services.....	11	-	-	11
26 Supplies & Materials.....	1	-	-	1
31 Equipment.....	1	-	-	1
41 Grants.....	<u>690</u>	<u>-</u>	<u>-</u>	<u>690</u>
Total	<u>788</u>	<u>1</u>	<u>0</u>	<u>789</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The National Museum Act (NMA) is a technical assistance program that makes grants for projects that will enhance the quality of museum operations. Through these grants the Act supports professional training in museum activities; research for the improvement of museum problems, such as pest control and computer-aided collections management; and the dissemination of technical information to the profession through publications and workshops or seminars. A bill authorizing appropriations through FY 1988 for activities under the National Museum Act, S. 840, was approved by the Senate on May 25, 1983. No action has been taken on it or on H.R. 2117, a companion measure which is pending before the Committee on House Administration. Previously available authority expired September 30, 1982. Funding for program activities have been provided in the Smithsonian's annual appropriations bills for the past two fiscal years. No program increase is requested for FY 1985. Necessary pay of \$1,000 is required for existing staff.

PROGRAM - National Museum Act funds appropriated to the Smithsonian Institution are distributed in the form of grants to provide training opportunities for museum professionals, to support research that advances knowledge about critical museum-related problems, and to encourage activities that make technical information available to the field. Grants are made to museums, professional museum-related organizations and associations, and academic institutions with museum-related programs. Many of the projects receiving support involve advanced training in the field of conservation and scientific research leading to new techniques for conservation practices and to better methods for the care and preservation of objects.

The National Museum Act Advisory Council, appointed by the Secretary, advises and assists in identifying priorities and assessing the quality of projects for which support is requested. The Advisory Council, which consists of museum and conservation professionals, represents the principal museum disciplines--art, science and history--as well as institutions of various sizes and, as much as possible, all regions of the United States. Only those proposals that include well-qualified personnel and that demonstrate thoughtful planning and the promise of generally benefiting the museum community are recommended for support.

National Museum Act grants to academic institutions have contributed to providing the museum field with individuals who have received vigorous, professional training. For the past four years, the Act has supported first-year students in a major three-year graduate program in conservation studies. All 65 graduates of the program to date are practicing conservators, and many are employed by major museums or regional conservation centers.

Internship grants to museums have included opportunities for minorities and provided essential hands-on experience in academic disciplines that do not include training for employment in museums. For example, current NMA grants are supporting an Hispanic student at a major museum in Denver and two black students at a museum in Philadelphia. For several years, two major botanical gardens in different parts of the country have received funds to train postdoctoral students in botany in the areas of curatorial practices and herbarium management. A recent grant enabled a veterinarian to complete a two-year residency in non-domestic animal medicine at a zoo in Philadelphia which led to employment at a zoo in the midwest.

For several years, NMA has provided partial support for an annual seminar on the administration of historical organizations for young professionals. The seminar, which has over 400 graduates, takes place at Williamsburg, Virginia and is the only workshop jointly sponsored by three national professional organizations. Last year, funds were awarded to a regional conservation center in the northeast to organize and present a three-day seminar on the conservation and management of photographic collections. Eighty-five museum professionals applied, but only 40 could be accommodated. Seventy-seven percent of the participants indicated afterwards that more than half of the information was new to them and 82 percent indicated that they intended to implement new preservation or curatorial practices as a result of their training experience.

Research projects continue to investigate new and better museum practices. For example, a major museum in New York City received a grant to use infrared reflectography to examine old panel paintings from the Netherlands and to develop computer programs to generate reflectogram assemblies for the enhancement of the visual images of underdrawings found on those paintings. A seminar/symposium to discuss and disseminate the information produced will follow the study. At a zoo in San Diego, research on improving the diet of captive animals, which are increasingly difficult to replace, is being carried out with support from the Act.

Professional associations have received NMA support to provide services to their member organizations. Since 1972, the American Association for State and Local History

has administered a consulting service for historical organizations, most of them small and unable to afford the services of an expert. To date, over 400 institutions, including some that serve ethnic and minority audiences, have received assistance from 300 different consultants on topics ranging from management techniques to improved methods for interpreting history to the public. For the past 11 years, the six regional associations of the American Association of Museums have received support for a variety of activities, including their informational journals, that benefit their members, many of which are small museums unable to send representatives to annual meetings of the national organization.

In FY 1983, 144 applications requesting \$2.8 million were reviewed by the Advisory Council. Sixty-four grants totaling \$693,000 were made; 80 percent of these grants relate to conservation training and research. In response to the December 15, 1983 deadline for applications for the FY 1984 program, 226 proposals requesting approximately \$4.5 million have been received. This is the largest number of applications and the largest dollar request received by the NMA program in one year.

In order to coordinate efforts and to meet, insofar as possible, the increasingly complex needs of museums, the staffs of the National Museum Act and the Office of the Assistant Secretary for Museum Programs work closely with individuals, museums, educational institutions, and professional organizations involved in museum training and research activities. The staff of the NMA also consults regularly with administrators of Federal museum programs and participates in the activities of the Museum Working Group of the Interagency Committee on the Arts and Humanities. These activities include procedures for avoiding overlap among agencies and methods of improving the dissemination of information about Federal funds to the museum community.

AMERICAN STUDIES AND FOLKLIFE PROGRAMS

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
FY 1983 Actual	10	603	9	448	-	80	-	84	-	248
FY 1984 Base /1	8	663	11	500	-	39	-	211	-	250
FY 1985 Estimate	8	689	11	534	-	39	-	150	-	250

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>8</u>	<u>0</u>	<u>0</u>	<u>8</u>
11 Personnel Compensation...	327	11	-	338
12 Personnel Benefits.....	31	1	-	32
21 Travel.....	10	-	-	10
22 Trans. of Things.....	5	-	-	5
23 Rent, Comm. & Utilities..	15	1	-	16
24 Printing & Reproduction..	49	2	-	51
25 Other Services.....	158	8	-	166
26 Supplies & Materials.....	48	2	-	50
31 Equipment.....	<u>20</u>	<u>1</u>	<u>-</u>	<u>21</u>
Total	<u>663</u>	<u>26</u>	<u>0</u>	<u>689</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of American Studies and the Office of Folklife Programs are engaged in research identification and analysis of a variety of traditions which form the foundations of American cultural expression. The emphasis of the Office of American Studies is on research and teaching. The Office of Folklife Programs, in addition to its research into American and foreign folklife traditions, presents these traditions in a national setting to general audiences through the annual Festival of American Folklife, special folklife exhibitions within Smithsonian museums, and documentary studies. The Office of Folklife Programs also engages in cooperative projects with other government agencies. No program increase for either Office is requested for FY 1985. Necessary pay of \$12,000 is required for existing staff and \$14,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. The Office of American Studies: With base resources of 2 workyears and \$97,000, the Office of American Studies sponsors a graduate program in American material culture in cooperation with various universities located in the Washington, D.C. area and in other cities. Four or five seminars a year are offered for academic credit and are taught by the director of the program and by cooperating scholars. In addition to the regular American Studies courses offered to graduates, a number of folklife courses have been added to the offerings recently, taught by guest lecturers from the Folklife Program staff as well as by outside folklife experts.

The graduate program in American material culture provides a means for scholars and students to pursue American studies utilizing the unique resources of personnel, objects, manuscripts, and books available in various bureaus of the Smithsonian. It provides opportunities for graduate students in American studies or American history departments of affiliated universities to undertake a program of formal course work at the Institution. In addition, a number of research grants and fellowships are awarded each year to support specific interdisciplinary research projects in American studies relevant to the interests and resources of the Smithsonian.

II. The Office of Folklife Programs: With base resources of 6 workyears and \$566,000, the Office of Folklife Programs identifies and studies folk traditions and develops methods for presenting these traditions to general and academic audiences to foster awareness and understanding of the importance of folklife customs; advocates the long-term commitment to the preservation and revitalization of sectors of world culture whose existence is endangered by the encroachment of the institutions of modern technological society; produces the annual Festival of American Folklife and develops scholarly documentation of the papers, films, tapes, and other materials amassed during the Festivals; collaborates with other Smithsonian bureaus on mounting folklife exhibitions; presents living traditions within the context of Smithsonian exhibitions; and works closely with other government agencies interested in traditional culture on the development of programs for the advancement of the nation's interests in folklife activities.

Publications - The staff of the Office of Folklife Programs is involved in a broad range of publication projects which document and analyze folklife traditions. These publications have grown out of research and presentation programs in which the Office has been involved. In addition, the Office produces scholarly monographs on aspects of traditional culture. Monographs are accompanied by documentary films which visually explain technical aspects of the written treatises. This latter model has proven a useful and important development for the study of folklore and anthropology. In FY 1984 and FY 1985, five monographs with accompanying films will be published, two monographs will be in process with their accompanying films being finished, and two new projects will be initiated. This series, entitled The Smithsonian Folklife Studies Series, is proving to be a significant resource for scholars and students in the social sciences.

The Festival of American Folklife - The Festival of American Folklife, which has become the largest annual cultural event in the Nation's Capital, presents the cultural traditions of the various ethnic groups in the different states and countries represented each year. During the past 17 years, the Festival has developed a large and loyal constituency throughout the nation. It also has stimulated local interest in the traditional arts in the regions from which folk artists have been brought to the Festival. Such interest, in turn, has fostered research projects, local mini-festivals modeled after the Smithsonian's Festival, and regional markets for traditional craftworkers and performing artists. For the 18th Festival in FY 1984, plans call for a major program from Alaska to celebrate its rich and varied traditional culture.

Exhibitions and Live Folklife Presentations - The Office of Folklife Programs has researched and developed a traveling exhibition on the surviving traditional potteries in the southeastern United States, entitled "Southeastern Potteries." Produced in cooperation with the Smithsonian Institution Traveling Exhibition Service (SITES), "Southeastern Potteries" opened a 26-week tour in November 1983, in Tennessee and will come to Washington, D.C. for an eight-week showing in June 1984, at the National Museum of American History. The Office of Folklife Programs also is planning a pottery program on the Mall in front of the Museum during the Festival of American Folklife which will include demonstrations of turning, glazing and firing by individuals from the potteries represented in the exhibition.

Planning has reached an advanced stage in the development of a unique exhibition from India to be presented in FY 1985 in the Evans Hall of the National Museum of Natural History/Museum of Man. The exhibition, "Aditi: A Celebration of Life," will demonstrate the special place of the child in Indian life and culture through the enormous craft, musical and ritual activity childhood inspires. The visitor to "Aditi" will proceed through 14 sections, each concerned with a different aspect of the life cycle: from the coming of age, courtship, marriage, and birth, to a child's learning to participate in the life of the community. The exhibition will include 1,500 objects put into juxtaposition with the 40 folk artists who have made or who use them. The exhibition presents an exemplary model for the presentation of traditional culture.

Cooperative Projects - The Office of Folklife Programs has been involved in several collaborative endeavors with government agencies interested in traditional culture. In FY 1984 and FY 1985, this Office plans to work with the Folk Arts Program at the National Endowment for the Arts to develop programs for the 18th and 19th annual Festivals of American Folklife which will highlight the talents of folk artists who have received support and encouragement from the Endowment. In addition, a summer-long exhibition will be planned for the National Museum of American History which will feature works by recipients of the Endowment's annual National Heritage Fellowship Awards.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds: I. Office of American Studies: Tuition reimbursement is received from the cooperating universities, principally the George Washington University and the University of Maryland, whose graduate students avail themselves of the courses offered by the Office of American Studies. The tuition reimbursement is designed to reimburse the Smithsonian Institution for the use of its facilities by the students participating in Smithsonian Institution classes and, in addition, to provide honoraria and reimbursement for the services of outside experts participating in the program (estimated expenditures of \$16,000 in FY 1984 and in FY 1985).

II. Office of Folklife Programs: Funds are provided from allotments and from concessions sales relating to the Folklife Festival. In FY 1984 and FY 1985, funds will pay the salaries of 11 employees of the Office of Folklife Programs as well as related support costs (estimated expenditures of \$500,000 in FY 1984 and \$534,000 in FY 1985).

Restricted Funds - Funds are provided in the form of individual gifts and grants from private foundations or corporations and are used to fund specific programs of the Folklife Program. Funds are anticipated from several sources to cover the costs of programs at the annual Festival of American Folklife (estimated expenditures of \$210,000 in FY 1984 and \$150,000 in FY 1985).

Federal Grants and Contracts - These are provided by various state and local governments for support of performances and programs at the annual Festival of American Folklife. In FY 1983, funds were received from a non-profit corporation set up by the Governor of New Jersey to cover the costs of highlighting the folklife traditions of New Jersey. Additional grant support is projected in FY 1984 and FY 1985 for the annual Festival (\$250,000 each year).

INTERNATIONAL ENVIRONMENTAL SCIENCE PROGRAM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	11	629	-	-	-	-	-	-	-	-
FY 1984 Base /1	13	684	-	-	-	-	-	-	-	-
FY 1985 Estimate	13	712	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>13</u>	<u>0</u>	<u>0</u>	<u>13</u>
11 Personnel Compensation...	207	5	-	212
12 Personnel Benefits.....	22	-	-	22
21 Travel.....	95	-	-	95
22 Trans. of Things.....	1	4	-	5
23 Rent, Comm. & Utilities..	1	-	-	1
24 Printing & Reproduction..	3	-	-	3
25 Other Services.....	226	13	-	239
26 Supplies & Materials.....	59	3	-	62
31 Equipment.....	<u>70</u>	<u>3</u>	<u>-</u>	<u>73</u>
Total	<u>684</u>	<u>28</u>	<u>0</u>	<u>712</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The International Environmental Science Program (IESP) coordinates the Institution's long-term monitoring and study of ecosystems. The goal is to evaluate biological diversity in order to understand and eventually predict consequences of human activities. The Program is a multi-bureau, interdisciplinary effort at two permanent Smithsonian sites--the Tropical Research Institute in Panama and the Environmental Research Center in Maryland--as well as at several temporary tropical sites. No program increase is requested for FY 1985. Necessary pay of \$5,000 is required for existing staff and an amount of \$23,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Smithsonian's long tradition in international research and unparalleled collections of natural history objects make it well qualified to sustain

scientists abroad. The IESP provides support costs for teams of scientists to monitor natural variations in specific environments that are still unstressed by humans. Recent studies by the National Academy of Sciences, the Council of Environmental Quality and the Office of Technology Assessment have emphasized the need for additional monitoring programs in both the tropic and temperate zones. The State Department sponsored a conference in November 1981 entitled "Strategy Conference on Biological Diversity," which emphasized that the rapid rate of tropical deforestation, loss of suitable soil and the need to inventory and monitor certain ecosystems is of critical strategic and scientific concern to the United States.

The main focus of the Program's permanent sites (at the Rhode River, Maryland, the tropical forest of Barro Colorado Island, and the Galeta Reef on the Atlantic side of the Panama Canal) over the last ten years has been to develop a long-term descriptive data base on biological, physical and chemical components of a series of habitats. The objective is to record the responses of biological populations and environmental processes to variation in seasonal, annual, and long-term patterns in climate, and to stresses and disturbances resulting from man's activities. Analyses of these data have led to the formulation of concepts and verifiable hypotheses concerning important environmental processes. It has been widely recognized that one of the major weaknesses in environmental research has been the lack of sufficient long-term data sets to distinguish the effects of climatic variation resulting directly from human interventions.

Data collection will continue over the next several years to increase the long-term descriptive data base, and new efforts will be made to develop a series of mathematical models. The models will be able to predict the effects of alternatives in watershed land use and of variation in climate upon nutrient discharge. The models will be tested for predictive capability on data taken during the next six to ten years. It is anticipated that these models will have general application to coastal regions.

Program highlights at permanent sites for FY 1983:

The preliminary analysis of data collected at the Program's Edgewater, Maryland site for over the last decade was completed in FY 1983. Total phosphorous concentrations in surface waters of the Rhode River estuary were shown to increase four-fold during the summer and fall of the 1970s, then leveled off. Also, phosphorous concentrations in headwaters, tidal areas and watershed stream discharges did not show such large warm weather increases. Other phosphorous and nitrogen parameters remained essentially constant in the Rhode River. These data indicate the increasing impact of lack of oxygen on phosphorous concentrations in Chesapeake Bay deep waters. It is believed that the extent and duration of these anoxic conditions increased during the 1970s.

Nitrogen nutrient contributions to the Rhode River estuary via atmospheric deposit directly onto the water surface and as land runoff were compared for seven years. On average, about the same annual amount of nitrate and ammonia entered the system via precipitation as from land runoff and during the summer and fall, precipitation was the largest source. The average nitrate content of summertime precipitation doubled during the seven year period. Thus, precipitation is an important nonpoint source of available nitrogen to the estuary.

Data collection on Barro Colorado Island (BCI) has indicated that tropical climates are subject to wider variation than previously theorized. The year 1983 provided dramatic evidence of this instability. Total rainfall on BCI was 20 percent below the 56-year average of 98.4 inches and the wet season ended abruptly one and a half months early. The ensuing dry season was the longest and driest period; the temperature of the rainfall in the forest during this dry season was 2° - 3° F higher than at anytime during the past ten years.

In FY 1983, mass mortality of the Caribbean sea urchin (Diadema) was first noted on Galeta Reef and has since then been spotted on other Caribbean areas of the Panama Coast. This urchin is a voracious consumer of marine algae and sea grasses and is known to influence strongly the abundance and distribution of these plants. Disappearance of the sea urchin has already resulted in blooms of fast growing algae on Galeta Reef. These blooms have an inhibitory effect on animal and other organisms in the reef waters as a result of the deprivation of oxygen, reducing the total productivity of the reef.

Program highlights at non-permanent sites for FY 1983:

With support from foreign governments, conditions at the Program's temporary sites are being monitored in Brazil, Venezuela, Nepal, Peru, and on Aldabra atoll in the Indian Ocean. In FY 1984, program expansion will occur in Nepal with the beginning of a highly structured five-year environmental monitoring program focusing on the climatic variations of the Chitwan ecosystem.

Venezuela - A major ichthyological survey was conducted across a broad area of the central savannahs of the Orinoco River basin. These extensive collections represent the first comprehensive sample of ichthyofauna of the region available to researchers outside of Venezuela. The sampling yielded five new species to science including one which has significant implications for commercial rearing via fish farming.

Aldabra - The first of five annual visits to Aldabra by National Museum of Natural History/Museum of Man scientists occurred in FY 1983. Focusing primarily on the intertidal region of the atoll, major new collections were made of this previously little studied ecological zone. The collections and resultant data will aid the international community in protecting this unique area recently declared by UNESCO as a World Heritage Site.

Brazil - Efforts in Brazil are divided between two programs, a reintroduction project focused on golden lion tamarins, and a long-term monitoring program of Brazilian Amazonia. Under the former project, twelve captive-born golden lion tamarins were selected and returned to Brazil in November 1983 for eventual release into the Poco d'Anta Reserve. Concurrently, analysis has begun on available habitat for the wild population. Work in Amazonian Brazil continued with efforts now being expanded to Peruvian Amazonia and the Atlantic Forests of Brazil for comparative analysis. Greater emphasis is being placed on understanding the basic vegetation of the region, both from terrestrial and marine ecosystem perspectives. Considerable new data is emerging on the role of tropical forest canopies and the species which inhabit this part of the forest.

Nepal - Research continued on the hog deer in Chitwan National Park with a total population of 50 under intensive investigation including six with radio collars. Questions being pursued include habitat use, movement patterns and activity cycles. Resident tiger populations are being carefully monitored with the assistance of local authorities, and estimates continue to show an upward trend in total animals over the last five years. Efforts have also continued on captive rearing and release of the highly endangered gharial (a crocodilian) into the river system of the Chitwan National Park.

ACADEMIC AND EDUCATIONAL PROGRAMS

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
			FTP**	Amount	FTP**	Amount			FTP**	Amount
FY 1983 Actual	21	634	2	159	-	891	-	118	-	-
FY 1984 Base /1	21	723	3	255	-	1,182	-	192	-	-
FY 1985 Estimate	21	745	3	278	-	1,574	-	175	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>21</u>	<u>0</u>	<u>0</u>	<u>21</u>
11 Personnel Compensation...	548	14	-	562
12 Personnel Benefits.....	56	2	-	58
21 Travel.....	17	-	-	17
23 Rent, Comm. & Utilities..	4	-	-	4
24 Printing & Reproduction..	62	4	-	66
25 Other Services.....	30	2	-	32
26 Supplies & Materials.....	4	-	-	4
31 Equipment.....	<u>2</u>	<u>-</u>	<u>-</u>	<u>2</u>
Total	<u>723</u>	<u>22</u>	<u>0</u>	<u>745</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - Research and education are among the principal objectives and responsibilities of the Smithsonian. In order to foster and stimulate the pursuit and dissemination of knowledge, the Institution has promoted scholarly and academic ties with other learned institutions since its establishment and has offered its resources for learning--its collections, professional staff, libraries, laboratories and field sites--to the general public and to the academic community. These ties are developed and maintained through competitive awards for research projects, programs in higher education, symposia and seminars, and learning opportunities at the elementary and secondary levels provided by the Office of Fellowships and Grants (OFG), the Office of Smithsonian Symposia and Seminars (OSSS), and the Office of Elementary and Secondary Education (OESE). No program increase for these Offices is requested in FY 1985. Necessary pay of \$16,000 is required for existing staff and an amount of \$6,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - I. The Office of Fellowships and Grants: With base funding of 11 workyears and \$319,000, the Office of Fellowships and Grants manages Smithsonian fellowships and related academic appointments and administers the Special Foreign Currency Program which provides grants to American institutions, including the Smithsonian itself, for research in "excess" foreign currency countries. Resources for administration of these programs are included here, as are costs of Institutional fellowships. The Special Foreign Currency Program is described in the separate section of this budget request for that appropriation.

The National Collections in the Smithsonian's care, as well as the curators and scholars who study them, offer unparalleled resources for specialized study in many disciplines--resources that are not available at any university, but are essential for research efforts in many fields. University education rests on the study of manuscripts or printed material and reproductions of artifacts. At the Smithsonian, historical and anthropological objects, original works of art, natural history specimens, living animals and plants, and ecological systems are available directly for study. Thus, the Smithsonian provides an important complement to university education.

The Institution makes available its resources to students and scholars throughout the country and profits from interchange with them. Residential fellowships provide access to the full range of Smithsonian resources. They are awarded throughout the Institution with nonappropriated Trust funds, enabling fellows to work in all research areas of the Institution and pursue interdisciplinary projects drawing upon the resources of several bureaus. Additional fellowships are offered through nonappropriated Trust funds or appropriated funds designated for the bureaus, providing research and training opportunities more closely tied to current bureau programs and interests.

The Office of Fellowships and Grants also coordinates Smithsonian academic internships by publicizing opportunities to students and organizations, distributing applications, administering internship stipends, and along with other Smithsonian offices and bureaus, assisting in the activities of the Smithsonian's internship council. In FY 1983, 65 students were awarded internship stipends and were placed in ten different bureaus, working on various projects. Of these, 23 minority students were supported with nonappropriated Trust funds as part of the Institution's efforts to increase minority participation in its academic and educational programs. In addition, the Office awarded three fellowships to minority faculty members. In January 1983, the Office also assumed responsibility for the Cooperative Education Program, which placed 13 students in positions throughout the Institution in FY 1983. It is hoped that some permanent employment opportunities may develop through these efforts. In FY 1984, the Institution will continue these special efforts through internships, faculty fellowships and cooperative education appointments.

II. Office of Smithsonian Symposia and Seminars - With base funding of 3 workyears and \$95,000, the Office of Smithsonian Symposia and Seminars designs programs linking the humanities and sciences, with special emphasis on new knowledge and its implications. As an extension of the Institution's educational outreach efforts, the Office's interdisciplinary activities serve advanced scholars, intermediate students, concerned professionals and the general public. Its primary responsibilities include administering the Smithsonian's international symposia series, continuing seminar series, and individual working seminars, all organized around themes of current significance to many academic disciplines receiving widespread public attention.

Of major importance is the Institution's eighth international symposium, "The Road After 1984: High Technology and Human Freedom," held December 7-10, 1983, in anticipation of the Orwellian Year. The symposium, of necessity, touched upon 1984's

warnings of Big Brother, totalitarian techniques, mind control, double think, and other of the novel's forebodings. Its thrust, however, centered on the technological advances giving birth to burgeoning new industries and the information/communication explosion. Organized in cooperation with Wake Forest University on the occasion of its 150th anniversary and with the Center for the Humanities, University of Southern California, the meetings probed the overall social and political dynamics now at work in the world and attempted to identify both dangers and blessings inherent in the new "high tech" society. The symposium is an official activity of the World Communications Year and will produce a book, based on its essays and other activities, to be published by the Smithsonian Institution Press.

Earlier in 1983, the Smithsonian Institution Press published The Muses Flee Hitler: Cultural Transfer and Adaption, 1930-1945, co-edited by the associate director of the Office of Smithsonian Symposia and Seminars and based on two colloquia organized by the Office during the Einstein Centennial, and How Humans Adapt: A Biocultural Odyssey, based on the Smithsonian's seventh symposium, edited by a curator of anthropology at the National Museum of Natural History/Museum of Man.

During FY 1983 and FY 1984, other activities of the Office include: the cosponsorship of "The Work of Peace," a two-day series of meetings on historic peacemaking and peacekeeping, held September 29-30, 1983, organized with the American University in celebration of the Bicentennial of the Treaty of Paris which formally ended the Revolutionary War; the planning for a festival to be held in June 1984, in cooperation with the Department of Cultural Resources of the State of North Carolina, to commemorate the four hundredth anniversary of the first English settlement in the New World at Roanoke Island, North Carolina; and the development, with The Year 2000 Committee, of a major highlighted event in September 1984 at which the Secretary of the Smithsonian will act as host to a panel of seven prominent public figures addressing critical issues before an invited audience of specialists and civic leaders.

In 1985, the Office will begin its first in a series of three programs commemorating the Bicentennial of the signing of the U.S. Constitution, "Learning the Duties of Citizenship." Following in 1986 will be "Ideas behind the Constitution," and in 1987 "The Pursuit of Justice," organized as the Smithsonian's tenth international symposium. "Learning the Duties of Citizenship," a civics seminar series that will explore how childrearing practices and other early influences in the life of the individual contribute to his later exercise of rights and duties as a citizen, will assemble specialists from a variety of academic disciplines to assess knowledge about how humans learn to take on the responsibilities and privileges of adulthood, including voting and participation in both government affairs and the governance of voluntary associations.

III. Office of Elementary and Secondary Education - With base funding of 7 workyears and \$309,000, the primary function of the Office of Elementary and Secondary Education (OESE) is to make Smithsonian resources for learning and teaching available to local and national school communities and other specialized audiences. By working with other Smithsonian education offices, OESE is the one Smithsonian bureau in a position to provide pan-Institutional programming for elementary and secondary schools, including workshops and seminars for teachers, publications and audio-visual materials for teachers and students; a summer intern program for high school students; and a Career Awareness Program for minority young people from the District of Columbia Public Schools. The Office also coordinates a wide range of services for disabled visitors to the Smithsonian.

OESE offers a number of programs to encourage cooperation and exchange of information between the Smithsonian and schools in the Washington, D.C. area. Two publications--"Let's Go" (a monthly newsletter) and "Through Looking to Learning: The

Museum Adventure" (an annual booklet)--which inform teachers about the variety of educational opportunities available at the Smithsonian to teachers and students at all grade levels, are sent to approximately 11,000 teachers in the Washington, D.C. area. During FY 1983, a workshop and seminar program for teachers attracted more than 900 participants to 38 programs, including six summer courses enabling the development of curriculum units based on the Smithsonian's collections. Summer programs for teachers include an orientation series introducing participants to a variety of Smithsonian resources, as well as a series of in-depth, one-week seminars on such topics as "teaching life sciences through direct observation," "museums and language development," and "teaching American cultural history through art."

To share these same teaching concepts with a national audience, the Office distributes "ART TO ZOO," a classroom newspaper, to more than 50,000 teachers and museum education departments throughout the United States; and circulates free of charge a slide loan package entitled "The Museum Idea," which reached an estimated 1,500 students in FY 1983. During the summer of 1983, OESE sponsored, in cooperation with the University of Virginia, a graduate level course on "Using Museums to Teach Writing" for a national audience of school librarians, teachers and curriculum specialists. The effectiveness and popularity of these national outreach programs is demonstrated by both formal evaluations and the continued demand for these services by teachers throughout the United States.

In FY 1984 and FY 1985, a series of OESE-sponsored "Regional Workshops" will be given in communities across the United States for the purpose of promoting the use of museums as educational resources. It is estimated that 2,000 teachers will be reached through these workshops in the course of an 18-month period.

During FY 1983, the Office continued its work to make Smithsonian programs accessible to disabled visitors by providing interpreters at special events, lectures, and tours, as well as providing guidance to the various Smithsonian museums who were seeking ways to provide more effective programming for retarded, hearing-impaired and blind visitors. In addition, sign language classes were given to teach approximately 75 Smithsonian educators, guards and other employees how to communicate with hearing-impaired visitors; a simplified guidebook to the Smithsonian was produced for retarded and hearing-impaired persons; and an "outreach kit" was developed to encourage reading and writing among language-delayed students. In FY 1984 and FY 1985, OESE will maintain these specialized services to assure better access to Smithsonian resources for disabled visitors.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - I. Office of Fellowships and Grants: These are provided from allotments which are primarily designated for the Institution's fellowship program (estimated expenditures of \$940,000 in FY 1984 and \$1,320,000 in FY 1985). Smithsonian fellowships serve the national academic community, as well as the Smithsonian's own research staff, and are an important part of the Institution's endeavors. Fellows provide intellectual stimulus to the work of the Smithsonian curators and scientists by offering new ideas and conveying the latest developments in their fields. Intellectual exchange continues beyond the fellowship year through lasting collaborations, correspondence, visits and joint publications. The Institution's staff members enthusiastically support the program, spending substantial time and effort to ensure its success. Smithsonian staff members work regularly with visiting fellows and are active each year in the selection process. In FY 1983, 89 awards have been made to fellows from 65 colleges and universities. Since 1965, 1,120 awards have been made to fellows from 219 schools.

In addition to fellowships for students and younger scholars, a few awards are offered annually at the senior level to scholars and scientists who have distinguished

themselves in their field of endeavor. Now in its fifth year, the Regents Fellowship Program continues to bring outstanding visiting scholars to the Institution (estimated expenditures of \$130,000 in FY 1984 and \$135,000 in FY 1985). Offered for the first time in FY 1983 are the Webb Fellowships, named in honor of the distinguished former Administrator of the National Aeronautics and Space Administration and Regent Emeritus of the Smithsonian Institution, and designated to promote excellence in the management of cultural and scientific not-for-profit organizations. Awards are for persons from within and outside the Institution (estimated expenditures of \$26,000 in FY 1984 and \$25,000 in FY 1985).

Funds also are used to support the Cooperative and Collaborative Education Programs. The Cooperative Education Program supports the graduate and undergraduate students on study-related work appointments (estimated expenditures of \$33,000 in FY 1984 and \$40,000 in FY 1985). The Collaborative Education Program covers the stipends for minority internships and faculty fellowships (estimated expenditures of \$75,000 in FY 1984 and \$80,000 in FY 1985).

II. Office of Smithsonian Symposia and Seminars: Allotments are provided for salary and support costs for the Director of OSSS. Educational Outreach funds supported OSSS's eighth symposium on the Orwellian Year.

III. Office of Elementary and Secondary Education: OESE's summer intern program, now in its ninth year, gives 30 graduating high school students an opportunity to participate in a learning-service program in the Smithsonian museums. Also supported by unrestricted Trust funds is a Career Awareness Program for the District of Columbia Public Schools which is designed to introduce minority young people to career opportunities at the Smithsonian (estimated expenditures of both programs are \$84,000 in FY 1984 and \$95,000 in FY 1985).

An anthropology curriculum kit, supported by a variety of unrestricted funds, was developed by OESE in cooperation with the National Museum of Natural History's Department of Anthropology and the Smithsonian Institution Press. During the 1983/84 school year, it will be tested in 800 classrooms in Alaska and other parts of the United States, and at the same time OESE will begin to look for corporate funding to support the production of an entire series of such curriculum packets for elementary and secondary schools.

A new publishing project--to produce a periodical designed to share information about the Smithsonian's research and collections with young adolescents in schools across the nation--is being undertaken by OESE and the Office of Public Affairs. In FY 1983, initial support for this project has been provided by Smithsonian Educational Outreach funds. Subsequently, approximately \$50,000 annually in foundation or corporate funding will be needed to enable the continuation of this periodical.

Restricted Funds - I. Office of Fellowships and Grants: These consist of restricted endowments, gifts and grants from individuals, foundations, organizations or corporations which specify their use for a particular project. For example, an endowment from the Walter Rathbone Bacon Scholarship supports awards and research on fauna from outside the United States (estimated expenditures of \$15,000 in FY 1984 and in FY 1985) and other funds are used to support fellowships for the study of the history of costumes in America (estimated expenditures of \$13,000 in FY 1984 and \$14,000 in FY 1985).

II. Office of Smithsonian Symposia and Seminars: Foundation support includes: developing joint cultural exchanges with Venezuelan nationals on the occasion of the 200th anniversary of the birth of Simon Bolivar and a joint symposium on Alexander von Humbolt; lecturing at a symposium on Charles Darwin in Caracas and representing the

Smithsonian at meetings and study sessions in Washington, D. C. and elsewhere in the United States. OSSS received gifts and grants for partial support of the eighth international symposium held in December 1983, and also is anticipating additional gifts and grants for the ninth international symposium scheduled for FY 1985.

III. Office of Elementary and Secondary Education: Since 1979, a foundation-supported program called "Exploring the Smithsonian" has been coordinated by OESE for the District of Columbia Public Schools. The program provides bus transportation to bring public junior high school students to Smithsonian museums to take part in a selection of interdisciplinary lessons on curriculum-related subjects in art, history and science. OESE works with the various Smithsonian education offices to plan and maintain the program activities. With the support of a \$31,000 grant from the Morris and Gwendolyn Cafritz Foundation, more than 3,500 students participated in "Exploring the Smithsonian" during the 1982/83 school year. Funding in the amount of \$36,000 has been received from the Cafritz Foundation to continue the program in FY 1984.

A cooperative effort between OESE and the Children's Hospital National Medical Center, begun in FY 1980 with support from the Smithsonian's Educational Outreach fund, is currently developing activity packets, based on the Smithsonian collections, for distribution to hospitalized children between the ages of five and eighteen throughout the United States. Corporate funding in the amount of \$51,000 is now being sought to enable completion of this project in FY 1984.

COLLECTIONS MANAGEMENT/INVENTORY PROGRAM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds			
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	42	789	-	-	-	-	-	-	-	-
FY 1984 Base /1	38	841	-	-	-	-	-	-	-	-
FY 1985 Estimate	38	857	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>38</u>	<u>0</u>	<u>0</u>	<u>38</u>
11 Personnel Compensation...	680	8	-	688
12 Personnel Benefits.....	48	1	-	49
21 Travel.....	5	-	-	5
25 Other Services.....	<u>108</u>	<u>7</u>	<u>-</u>	<u>115</u>
Total	<u>841</u>	<u>16</u>	<u>0</u>	<u>857</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - In June 1983, the Institution completed the first inventory of its collections. The inventory was conducted under a policy established by the Smithsonian in 1978 as part of a collections management program designed to ascertain the full extent of the Institution's holdings and to assure continuing accountability by the maintenance of comprehensive records of those holdings. For the inventory, each museum established schedules, procedures and information requirements appropriate to the size and nature of its collections. Because of the comparatively smaller numbers of objects and specimens held, most of the museums (National Museum of African Art, Freer Gallery of Art, Hirshhorn Museum and Sculpture Garden, National Portrait Gallery, National Museum of American Art, National Air and Space Museum, and National Zoological Park) were able to complete their inventories within the five-year period using only their base resources. Additional funding, made available through appropriations beginning in FY 1979, was used each year to supplement base resources of the National Museum of Natural History/Museum of Man, National Museum of American History and Cooper-Hewitt Museum to assist those museums in addressing special inventory problems. The National Museum of Natural History/Museum of Man, with more than 81 million specimens, and the

National Museum of American History with approximately 16 million diverse objects, required additional resources to manage the enormously large volumes of materials to be inventoried. The Cooper-Hewitt Museum, whose collections had not been inventoried prior to their transfer to the Institution, required extra assistance to create an accurate and comprehensive current record of its collections. Effective utilization of the inventory record requires that these three museums continue: to refine the vast amount of data accumulated during the inventory process; to maintain the record on a current basis; and for particularly important collections, to reconcile the new record with older catalogue information. No program increase is requested for FY 1985. Necessary pay of \$9,000 is required for special inventory staff and an amount of \$7,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The full benefit of the inventory data can be realized only after it has been used to correct and improve earlier data accumulated as the collections were acquired. During the course of the inventory, those museums having smaller collections (from about 3,000 to 30,000 items) were able to conduct a "reconciliation" process which involved matching inventory records with pre-existing records identifying discrepancies between the two sets of documents. Efforts then were initiated to search out objects or records that appeared to be missing or misplaced. As discrepancies are resolved, inventory and catalogue records are adjusted and brought into agreement.

The existing base of \$827,000 will be used in FY 1985 to enable selected museums to continue the processes of reconciliation, refinement, and maintenance of inventory data. Each of these museums has devised and is pursuing a specific plan for these processes. Reallocation of Collections Management/Inventory funds to be incorporated into the base resources of the museums with the largest and most complex collections has been deferred pending the ongoing refinement process in these museums.

COLLECTIONS MANAGEMENT/INVENTORY PROGRAM

(Dollars in thousands)

	<u>Natural History</u>	<u>American History</u>	<u>Cooper- Hewitt</u>	<u>Other</u>	<u>Total</u>
FY 1984 Base Resources	\$559	\$ 711/1	\$ 50	\$ -	\$1,320
FY 1984 Estimated Portion of \$827,000/2	<u>394</u>	<u>300</u>	<u>73</u>	<u>60 /3</u>	<u>827</u>
TOTAL FY 1984	\$953 =====	\$1,011 =====	\$123 =====	\$60 =====	\$2,147 =====
FY 1985 Base Resources	\$559	\$368	\$ 50	\$ -	\$ 977
FY 1985 Estimated Portion of \$857,000/4	<u>405</u>	<u>316</u>	<u>76</u>	<u>60 /5</u>	<u>857</u>
TOTAL FY 1985	\$964 =====	\$684 =====	\$126 =====	\$60 =====	\$1,834 =====

/1 Includes registrarial functions.

/2 FY 1984 appropriation.

/3 In FY 1984, this amount has been allocated as follows: Office of Information Resource Management, \$55,000; and Office of the Registrar, \$5,000.

/4 Proposed FY 1985 base including costs of FY 1984 pay raises and funds sought for necessary pay (\$23,000) and inflation (\$7,000).

/5 For FY 1985, this amount is planned to be allocated as follows: Office of Information Resource Management, \$55,000; and Office of the Registrar, \$5,000.

Because of the size of its collections, the National Museum of Natural History/Museum of Man (NMNH/MOM) conducted its initial baseline inventory at three levels: specimen level, covering individual specimens of outstanding scientific merit and/or high intrinsic value; the batch level, covering medium-size groups of related specimens; and the collection level, consisting of large assemblages of related materials. In the last two instances, the number of specimens covered by each inventory record was estimated following careful sampling of each group of materials. Combining the specimen level count with the batch and collection level estimates, the total collection at the Museum numbers approximately 81 million items.

Reconciliation plans of the NMNH/MOM will entail reviews of selected accession records; review of catalogue records for which the inventory covered all entries, thus making it possible to discover and resolve gaps in catalogue numbers and inventory data; and review of type specimen catalogues in certain departments. Reconciliation efforts in FY 1984 will emphasize the archeology/ethnology, and gems and minerals collections. In the area of refinement of inventory data, the Museum will undertake specimen level inventories of collections inventoried previously at the batch or collection level. Examples of such collections include lepidoptera, type specimens in the Department of Entomology, cactus and bamboo specimens in the Department of Botany, and bird skeletons in the Division of Birds. Some of this effort is associated with inventory data required in conjunction with the move of collections to the Museum Support Center. Finally, the Museum will devote some of the requested resources to the enhancement of inventory data for collections management purposes by making the data more precise and improving its value for information retrieval purposes.

Projects for FY 1984 include a mixture of editing, reconciliation, maintenance and new inventories. Editing is important to make inventory files accurate and reliable both for inventory purposes and scholarly uses. Editing covers: (1) proof-reading of existing inventory files to correct errors; (2) standardizing data to make information more reliable for retrieval purposes; and (3) verifying the computer lists against the collections.

Similarly, the National Museum of American History (NMAH) has developed plans to match its inventory records with selected data from accession files, accession books, and catalogue books and cards which contain information needed for the Museum's use in control of objects. Records which have been dispersed in past years among Museum divisions will be assembled, and pertinent data from those records will be prepared for computer entry to facilitate matching with related inventory files. Records also will be searched for key information for objects which may have become separated from their original numbers, or which have been subjected to changes in nomenclature, over the passage of time. Refinement activities will focus primarily on the very large National Philatelic and Numismatic Collections in which extensive reorganization of holdings is taking place, and on collections stored at the Silver Hill facility which were not all available individually for review during the inventory cycle because of space limitations. A portion of \$200,000, reprogrammed to NMAH in FY 1984 solely for collections management and inventory efforts, is being used for these priorities. These funds also are being used to refine the records of several frequently used collections including areas of the Divisions of Medical Sciences, Extractive Industries and Political History. The Museum also has developed improved systems for effective registrarial control for maintenance of collections information and will implement those systems.

To continue its reconciliation, the Cooper-Hewitt Museum must develop, through various photographic and automated procedures, suitable working copies of the original and often fragile catalogues and other records which accompanied the transfer of collections to the Institution. Conversion of this original data to new formats will facilitate matching of all available collections data.

MAJOR EXHIBITION PROGRAM

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	8	825	-	-	-	-	-	-	-	-
FY 1984 Base	-	885	-	-	-	-	-	-	-	-
FY 1985 Estimate	-	-	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base	Necessary Pay and Inflation	Program Change	FY 1985 Estimate
FTE Allocation.....	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
11 Personnel Compensation...	196	-	-196	-
12 Personnel Benefits.....	21	-	-21	-
21 Travel.....	8	-	-8	-
22 Trans. of Things.....	10	-	-10	-
24 Printing & Reproduction..	6	-	-6	-
25 Other Services.....	630	-	-630	-
26 Supplies & Materials.....	<u>14</u>	<u>-</u>	<u>-14</u>	<u>-</u>
Total	<u>885</u>	<u>0</u>	<u>-885</u>	<u>0</u>

ABSTRACT - Since FY 1981, the Major Exhibition Program has provided centralized support for exhibitions too costly to be funded within individual bureau base resources. Although several exhibitions were successfully produced during that time, it has become increasingly apparent that the financial needs of the special exhibition program of the Evans Hall in the National Museum of Natural History/Museum of Man, and the program of phased reinstallation of the permanent exhibit halls within the National Museum of American History, are such overriding priorities that the resources of this Program would best allocated to those purposes on a permanent basis. Therefore, a decrease of \$885,000 is requested for this Program in FY 1985. Justifications for a permanent reprogramming of these funds to the aforementioned bureaus is described in their respective budget statements.

PROGRAM - An overriding factor in mounting major exhibitions is the long lead time required to develop loan shows of major significance. Contractual commitments have to be made two to three years prior to the actual show, a practice which does not lend

itself well to the Federal budget process since the commitments must be made well before the appropriation can be guaranteed.

Consequently, the Institution now has under study a proposal to finance with Trust funds Major Exhibitions which are beyond the base resources available to individual bureaus. This new program would be at the approximate level of \$1.0 to \$2.0 million annually depending on the overall unrestricted Trust fund budget, and would allow allocations on the basis of a competitive review of proposals. Assuming approval by the Board of Regents, this program is planned to become effective in FY 1985. This program will be designed to be augmented with fund-raising efforts but will provide a stable basis for such efforts.

MUSEUM SUPPORT CENTER

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General FTP**	Amount	Special Purpose FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	38	6,758	-	-	-	79	-	-	-	-
FY 1984 Base /1	116	8,529	-	-	-	650	-	-	-	-
FY 1985 Estimate	143	13,172	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>116</u>	<u>0</u>	<u>27</u>	<u>143</u>
11 Personnel Compensation...	2,757	55	492	3,304
12 Personnel Benefits.....	275	6	53	334
21 Travel.....	22	-	-	22
22 Trans. of Things.....	1	-	-	1
23 Rent, Comm. & Utilities..	778	-	4	782
25 Other Services.....	389	25	172	586
26 Supplies & Materials.....	274	20	110	404
31 Equipment.....	<u>4,033</u>	<u>7</u>	<u>3,699</u>	<u>7,739</u>
Total	<u>8,529</u>	<u>113</u>	<u>4,530</u>	<u>13,172</u>

/1 Includes FY 1984 costs of legislated pay raises (\$73,000) and restored funding for staffing (\$500,000).

ABSTRACT - During FY 1984 and FY 1985, a majority of the equipment for the Museum Support Center (MSC) will be acquired and installed and the movement of collections will be well under way. Since FY 1981, the Institution has been preparing for the occupancy of the Museum Support Center by developing specifications for the equipping of the Center; and by beginning to implement the Conservation Analytical Laboratory's (CAL) new Conservation Training Program; and preparing for the location of a branch of the Smithsonian Institution Libraries at the Center. In FY 1983, with initial staff and associated support funds appropriated by the Congress, the Institution began the task of providing for program direction of the Center, for security and for buildings and grounds maintenance.

For FY 1985, \$4,530,000 is requested for additional operational staffing (27 additional positions and \$925,000) and a further increment (\$3,605,000) for the acquisition

of storage equipment necessary for the initial move to the Support Center. Necessary pay of \$61,000 is required for existing staff and an increment of \$52,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Museum Support Center provides a total of 251,000 net assignable square feet of which 146,000 will be used for storage of museum collections and 105,000 will be assigned for laboratory, work area, conservation training and service purposes. Many individual bureaus and units of the Institution will be involved in the operation and use of the Center.

The Institution has provided oversight to the General Services Administration's planning and contracting activities for the collections storage equipment required by the National Museum of Natural History/Museum of Man, the National Museum of American History, and other museums and galleries. The storage system envisioned for the collections of the museums will permit efficient, high density storage on three eight-foot high storage levels, similar to multi-story library stacks. These systems use fixed self-supporting metal racks and cabinets that will hold a variety of cases, shelves and drawers as needed to meet the specific requirements of each of the collections. The installation of wet storage equipment (for collections stored in liquid) will be completed in early 1984. A contract for the acquisition and installation of dry storage equipment was awarded in December 1983.

The movement of collections from the National Museum of Natural History/Museum of Man and the National Museum of American History to the Museum Support Center is a process which will take approximately three years. The magnitude of this transfer of collections is unprecedented in the museum community in terms of numbers of items to be moved, the distance involved, the variety of materials, and the differing characteristics of the objects. The National Museum of Natural History/Museum of Man alone will send millions of objects and specimens to the Center in its move. The Institution has solicited advice from moving specialists and museological sources regarding the most effective and safest methods for transporting the collections. There appears to be no single acceptable method for moving this wide variety of materials; rather, specific methods of transfer must be keyed to the type of collections involved. Bearing in mind the aforementioned characteristics, a detailed plan and a scheduled sequence of events for accomplishing the move has been developed. With funds appropriated in FY 1983, initial supplies of moving materials have been acquired along with special vans to assure direct Smithsonian control over the movement of the more sensitive collections. Temporary personnel have been hired to help prepare collections for the move. The first collection scheduled to be relocated to the Museum Support Center will be specimens preserved in liquid from the Smithsonian Oceanographic Sorting Center which currently occupies leased space in the Washington Navy Yard. The request for FY 1985 maintains the FY 1984 level of funding for move costs.

The Center is equipped with dual-fired boilers which generate steam to heat the building and can use either fuel oil or gas depending on the availability and cost of each. Electricity is used for ventilating and air conditioning the building in addition to providing power for lights, chillers, pumps and scientific and office equipment. In the estimates for both electricity and fuel oil or gas, the number of heating or cooling degree days in the Washington, D.C. area was factored with the capacity of the equipment in use and multiplied by the projected cost of the utility for FY 1985. As with other Smithsonian buildings, an automated power management system which minimizes costly peak demand rates is installed in the Museum Support Center. A total of \$772,000 is required to pay for electricity for lighting, ventilating and air conditioning and for fuel oil or gas for heating. No increase over the FY 1984 base for utilities costs at the Museum Support Center is requested for FY 1985.

EXPLANATION OF PROGRAM INCREASE - For FY 1985, \$4,530,000 is requested for operational staffing (27 additional positions and \$925,000) and a further increment (\$3,605,000) for the acquisition of storage equipment necessary for the initial move to the Center.

Museum Support Center Administration and Maintenance (4 additional positions and \$149,000) - The Office of the Director of the MSC oversees and administers the Automated Data Processing Center used for registrarial and collections management activities and for research and informational purposes required by scientific program occupants such as the Conservation Analytical Laboratory. The Office enforces the procedures established for MSC program operations, coordinates the activities of program units using the building and its facilities, and supervises facilities management operations. To meet its responsibilities, the Office requires a staff of six positions, five of which were allowed in FY 1984. These were the positions of director, one collections coordinator, one data manager, one data clerk, and one administrative services assistant. For FY 1985, an additional position for an ADP specialist is required. This specialist is needed to maintain the automated data system to be used for inventory control and information management related to the collections stored in the MSC and for scientific applications required by occupants of the building.

The Office of the Facilities Manager for the Museum Support Center is responsible for providing shipping and receiving services and performance of janitorial and labor functions for cleaning and maintaining the laboratory, collections processing and storage areas of the Center. The MSC has been designed to provide a secure, clean and stable environment for storage of collections, for research on the collections and for conservation work. Cleanliness of the facility is a basic requirement of its successful operation, and particular attention will have to be given to this factor over the period of the next several years as massive numbers of collections are moved into the building. Total staffing requirements call for 32 positions to provide janitorial and labor services and to oversee and administer the flow of materials into and out of the Center. In FY 1984, this Office was appropriated funds for 29 positions to provide these essential services. For FY 1985, an additional three positions are requested to complete the staffing, since by that time all laboratory and storage areas will be in use. The staff will continue in the future to meet the facilities management responsibilities of the Center.

National Museum of American History Operations (1 additional position and \$108,000) - The initial move of collections from the National Museum of American History to the MSC will require that a large amount of preparatory work be done on the collections being relocated. One conservator and funding for professional contractual services have been provided in FY 1984. Preparatory work involves final determination of collections and objects to be moved to the Center and involves examination, packing, transfer, unpacking and re-housing the collections as well as recording of inventory and registrarial information on the objects moved. This entire process must be given constant attention and must be done under careful supervision by trained personnel. For FY 1985, the National Museum of American History requests a position for a registration technician to oversee the movement of objects during the period of the initial move and to control the flow of historical objects in and out of the Museum Support Center in future years. For FY 1985, the Museum also requests \$75,000 for five temporary museum technicians to assist with the heavy volume of work associated with the initial move.

Conservation Analytical Laboratory Operations (10 additional positions and \$377,000) - For FY 1985, an increase of 10 positions and \$377,000 is requested. These positions will augment the present base of 18 positions. For the conservation and analysis functions in FY 1985, two conservators and two conservation scientists are needed to continue to analyze and treat the large number of items in Smithsonian collections which require conservation and restoration, and to continue acquisition and sharing of conservation

data with other museums and with research and conservation organizations in the United States and abroad. Senior conservation staff have the expertise needed to perform independent conservation treatment of objects of various types and to supervise other staff conservators. Senior conservators also will devote some of their time to demonstrating their specialities to students in the training program. The junior conservators requested in FY 1985 will perform conservation treatments under supervision and are needed to assist with the heavy conservation workload anticipated. One of the conservation scientists will be a materials scientist and the other will be a microanalyst.

Six positions are required for the Conservation Training Program which will enroll its first class during FY 1985. Each student will receive instruction, supervision, guidance and advice while working "hands-on" in an active laboratory situation with both practice materials and objects from museum collections. Two conservators (fabrics and ceramics) will cooperate with CAL conservators in other disciplines to instruct interns in the use of specialized equipment, treatment methods and alternatives in dealing with specific problems and will serve as intermediaries between interns and museum curators who have the ultimate responsibility for the collections being treated. In addition, several support staff will be required for the training program and associated conservation information activities. An equipment coordinator will schedule, assemble, maintain and assure the availability of scientific and audio-visual equipment needed for instructional purposes. Other staff include a secretary for the director of training, a conservation aide to assist in obtaining and cataloguing reprints for the information function and a data entry clerk for records keeping related to treatments and training activities.

Smithsonian Institution Libraries Operations (2 additional positions and \$47,000) - Funds have been provided to support a librarian for the MSC Branch Library which will serve the research needs for the Conservation Analytical Laboratory, the National Museum of Natural History/Museum of Man and the National Museum of American History. This branch library was merged with the existing CAL Branch Library when CAL moved to the MSC in the fall of 1983. The Conservation Analytical Laboratory has become an important center for museum conservation, research and information, and the Smithsonian Institution Libraries is needed to support this growing function. The branch library at MSC is one of five conservation libraries in the world and the only one in this country which performs a conservation reference service. A dramatic increase in service to persons and organizations outside the Smithsonian has developed over the past several years. In an average month, 24 advanced reference inquiries, some of which require a whole day's research, are conducted for outside users. Between 20 and 40 requests for interlibrary loans are received monthly. The MSC Branch Library also will provide bibliographic support to the conservation students who will be studying in the Conservation Training Program. Additional staff support will be required to maintain a full range of library services for both research and educational purposes. An increase of two library technicians will allow the MSC Branch Library to meet its operational responsibilities as full operation of the MSC gets under way in 1985.

Office of Printing and Photographic Services Operations (1 additional position and \$20,000) - The Office of Printing and Photographic Services provides photographic support for inventory control, documentation of conservation treatments and instructional needs of the Conservation Training Program. By FY 1985, the demand for photographic services will exceed the capability of the one photographer provided in FY 1984. The Department of Anthropology, which will be moving a large portion of its collection to the Center, needs to photograph high value and delicate items in the archaeology and ethnology collections. These objects number a quarter of a million items. Further, museum departments utilizing high bay storage will photograph collections to be stored there so researchers can identify items to be studied without moving or disturbing objects unnecessarily. The one additional photographer position requested for FY 1985 will be necessary to meet the heavy photographic workload, which includes taking photographs and developing and printing them in the photographic laboratory.

Office of Protection Services Operations (9 additional positions and \$224,000) - The Office of Protection Services (OPS) provides internal and external security for the Museum Support Center on a 24-hour-a-day year-round basis. OPS also provides health services for personnel at both the MSC and the Silver Hill Facility. A carefully coordinated protection system, combining staffed guard posts, roving canine teams and automated electronic surveillance devices has been developed to achieve the high level of protection required for the Center which will house a substantial number of irreplaceable National Collections. The MSC will be in full operation in FY 1985, and a total protection force of 42 full-time positions is required to accomplish this mission. These positions include 29 guards and four supervisors to staff the guard posts throughout the building, five canine teams for perimeter security, one ADP specialist to oversee operations and prepare and maintain control programs for the central electronic security console and its appurtenances, two alarm technicians to maintain security devices throughout the building and one nurse to staff the health station. In FY 1983, 16 of the required positions were made available with 17 additional positions added in FY 1984. To complete this essential staffing structure, the remaining nine positions are sought in FY 1985. Specifically, these include six guards, two canine officers, and one alarms technician.

The guards and canine officers requested will fill the roster of personnel needed to staff 14 posts inside and outside the building throughout the day, at night and on weekends. The lengthy perimeter of the MSC facility will be continuously patrolled by canine teams during the night and over weekends. Without the additional two canine teams, it will not be possible to conduct these patrols. On weekends, security gates to the MSC grounds will be kept locked and canine teams will have the responsibility for responding to requests for entry by authorized personnel. The electronic security system contains hundreds of devices including motion and audio detectors, electronic locks, closed-circuit television, card-reading devices and intercoms. A second alarms technician is required to assure that these devices are operating properly at all times and that the integrity of the system is not compromised by failure of any of the devices. This system has been designated as a prototype which will be expanded during the next several years to all Smithsonian museums in the Washington, D.C. metropolitan area.

Storage Equipment (\$3,605,000) - A level of \$7.5 million is requested for collections storage equipment in FY 1985. This represents a net increase of \$3.605 million over the FY 1984 level for the planned acquisition of storage equipment necessary for the initial move to the Museum Support Center.

With funds appropriated in FY 1981, the Institution is acquiring three-tiered open shelf storage equipment for the "wet" storage pod of the Museum Support Center. This storage equipment will accommodate specimens preserved in alcohol from the Smithsonian Oceanographic Sorting Center and portions of the Departments of Vertebrate and Invertebrate Zoology of the National Museum of Natural History/Museum of Man. Bids for this first phase of storage equipment were opened on July 9, 1982, and the low bid was within funding availability. The Institution has developed plans and performance specifications for the phased acquisition of the three-tiered self-supporting racking system to be used in Pods 1, 2 and 4 of the Center. Bids for this equipment were opened on September 22, 1983 and the General Services Administration made a contract award to the low bidder in December 1983. This storage system will contain storage compartments with various sized drawers or shelves, or other storage components appropriate to the many types of collections to be placed in the Center. For FY 1985, the Institution is requesting an increase of \$3,605,000 to complete acquisition of the storage equipment necessary for the initial move to the Museum Support Center. Approval of this request will permit substantial savings resulting from economies of scale through procurement of larger segments of the storage equipment and reduced design, management and inflation costs.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An allotment of \$750,000 was provided in FY 1982 to purchase special laboratory equipment for the Conservation Analytical Laboratory. An amount of \$79,000 was spent in FY 1983 with the balance to be committed in FY 1984.

The following chart summarizes the overall Museum Support Center - related costs from FY 1982-FY 1989.

Museum Support Center - Related Costs

	FY 1982	FY 1983	FY 1984	Proposed Change 1984-1985	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
	Approp.	Approp.	Base 1/		Estimate	Estimate	Estimate	Estimate	Estimate
	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$	(Pos.) \$
Operating and Program Personnel and Support Costs	8 187	36 1,019	116 3,112	27 +1,038	143 4,150	148 4,188	151 4,223	152 4,423	154 4,506
Moving Expense	-	- 1,100	- 750	-	- 750	- 500	- 500	- 500	-
Utilities	-	- 772	- 772	-	- 772	- 772	- 772	- 772	- 772
Equipment /2	- 4,315	- 3,820	- 3,895	- +3,605	- 7,500	- 1,200	- 1,200	- 1,200	- 1,200
TOTAL	8 4,502	36 6,711	116 8,529	27 +4,643	143 13,172	148 6,760	151 6,695	152 6,895	154 6,478

/1 Includes FY 1984 costs of legislated pay raises (\$73,000) and restored finding; for staffing (\$500,000).

/2 An additional \$750,000 have been provided from unrestricted Trust funds for Museum Support Center equipment; \$1,750,000 in Trust funds resulting from proceeds from the sale of the Belmont Conference Center also have been obligated to GSA for construction.

QUADRANGLE OPERATIONS

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		Funds		& Contracts	
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	-	-	-	-	-	-	-	-	-	-
FY 1984 Base	-	-	-	-	-	-	-	-	-	-
FY 1985 Estimate	21	1,109	-	-	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>0</u>	<u>0</u>	<u>21</u>	<u>21</u>
11 Personnel Compensation...	-	-	474	474
12 Personnel Benefits.....	-	-	50	50
21 Travel.....	-	-	35	35
22 Trans. of Things.....	-	-	3	3
23 Rent, Comm. & Utilities..	-	-	4	4
24 Printing & Reproduction..	-	-	18	18
25 Other Services.....	-	-	100	100
26 Supplies & Materials.....	-	-	30	30
31 Equipment.....	-	-	295	295
Collections Acquisition..	-	-	100	100
Total	<u>0</u>	<u>0</u>	<u>1,109</u>	<u>1,109</u>

ABSTRACT - The Quadrangle will be a 368,000 square-foot building situated on a four-acre site adjacent to the Smithsonian Castle, the historic Arts and Industries Building, and the Freer Gallery. Located on one of the most prominent grounds in Washington, D.C., a short distance from Capitol Hill, it will supplement the cluster of Smithsonian museums already on the Mall. Ground for the structure was broken in June 1983, and completion of construction is anticipated in January 1986. For United States and many international visitors, the Quadrangle will serve as an education and research facility elucidating the cultures represented in the Center for African, Near Eastern, and Asian Cultures, while for foreign visitors and representatives from both regional and national cultures therein represented, the Quadrangle is intended as a "home away from home." Several Smithsonian bureaus and programs will constitute this Center in the Quadrangle: the Sackler Gallery of Art, the National Museum of African Art, the Center for Islamic Arts and Culture, the International Center, and the

Smithsonian Institution Traveling Exhibition Service. Additional space for educational purposes will be afforded to both the Resident and National Associate Programs.

For FY 1985, an increase of 21 positions and \$1,109,000 is requested for Quadrangle operations as detailed in the explanation of program increase which follows.

PROGRAM - The Quadrangle at the Smithsonian Institution will be the home for a complex of activities dedicated to improved understanding of the many cultures extending from Africa, through the Middle East and Asia, to the Philippines and the South Pacific. This vast expanse contains well over two-thirds of the world's population, historic centers of many of the great religions, unmatched repositories of rich art and artifacts, all of which demonstrate the immense inventiveness, creativity, initiative, and ingenuity of their peoples.

Despite the considerable influence of these cultures on the development of Western thought and achievements, they remain enigmas to large segments of American and European populations. Advanced technology and communications have helped to destroy the sense of remoteness but not of strangeness. The need to focus more attention on these lands is self-evident and uncontested. Accordingly, the emerging Center for African, Near Eastern, and Asian Cultures in the Smithsonian Quadrangle has a single objective: to provide the facilities, programs and collections which will enhance visitors' appreciation and understanding of these diverse and influential cultures and encourage their preservation through national and international dialogue.

Activities in the Quadrangle also include those dedicated to education and outreach. In addition to contributing to meeting the overall public service responsibilities of the Quadrangle, these activities will continue to involve a wide range of programs in Washington, D.C., and elsewhere.

Several Smithsonian bureaus and programs will constitute this Center: the Sackler Gallery of Art, the National Museum of African Art, the Center for Islamic Arts and Culture, the International Center, and the Smithsonian Institution Traveling Exhibition Service. Furthermore, the Resident and National Associate Programs will have access to space for educational purposes. In carrying out their Quadrangle work, these entities will have the individual and combined mission to illuminate and explicate the cultures represented in the Center. They will pursue this central mission in ways appropriate to each: permanent and temporary exhibitions, lectures and conferences, research and seminars, performances and films, classes, individual study and group projects.

Sackler Gallery of Art and National Museum of African Art:

As the repositories of invaluable collections from cultures throughout the areas represented in the Center, the two museums will form the foundation of the Quadrangle. Their directors are responsible for installing permanent and rotating exhibitions reflective of the cultures which each museum represents. Exhibits will be designed to foster a sense of viewer participation, enabling visitors to associate objects with the purposes of their creation. Recreated cultural environments will be authentic and exhibited objects will reflect high standards of artistic and cultural achievement. Careful design and installation will convey to viewers a sense of the character and meaning of objects by revealing as much as possible about their creators, their context, their purpose, and the cultural values they embody. Supporting these exhibitions will be a full range of supportive museum activities: research and publication; collections acquisition, management, and conservation; and education. In their work, the museums will set the tone and create the operating style for the entire Center. The museums will have the space, the collections, the research facilities and the competence and imagination to assure this central role.

Center for Islamic Arts and Culture:

The Center for Islamic Arts and Culture will be located within the Center for African, Near Eastern, and Asian Cultures and will be the responsibility of the director of the International Center. The Center for Islamic Arts and Culture will seek outstanding authorities in the United States and abroad to come and pursue their research in conjunction with Smithsonian historians, scientists, and curators working --whenever it is appropriate-- with Smithsonian collections and the International Center data bank. The goal of the Center for Islamic Arts and Culture will be fundamental research in the Islamic field as well as the development of publications, lectures, seminars, exhibitions and performances concerning the cultures of the Arab and Islamic world.

The International Center:

The International Center will promote improved understanding between Western nations and those of Africa, the Near East, and Asia. The focus of the Center's scholarly endeavors will be natural and cultural history and conservation issues of mutual concern to the participating nations, as well as to all the world's peoples and their governments. The Center will coordinate collaborative research projects involving Smithsonian, United States, and foreign scholars, which will lead to a series of international symposia (seminars or conferences) held singly as well as in conjunction with exhibitions and performance programs. The Center will also provide information in international historical, cultural and scientific subjects through use of an automated videodisc system developed for this purpose. It will welcome cooperative projects with other Smithsonian entities, such as the Woodrow Wilson Center for International Scholars, the Department of Anthropology, the Office of Smithsonian Symposia and Seminars, the Office of Folklife Programs, the Office of International Activities, and the Office of Fellowships and Grants.

The conservation efforts to be explored through International Center activities stem from the interplay of natural and cultural ecological concerns. International Center efforts to delineate, analyze, and examine global conservation problems will focus on the following areas:

- historic sites, monuments and artifacts
- the quality of the natural environment
- endangered natural species
- living human cultures

The International Center will not build its own permanent scholarly staff, nor will it maintain collections or its own library. Rather, it will seek to support bureau efforts to strengthen staff, collections, and library holdings in areas now perceived to be weak. Joint projects focusing on a single country's conservation endeavors and needs will develop through survey research conducted by Smithsonian scholars and consultants in collaboration with scholars from the country in question. Existing indigenous research institutions will be involved whenever possible, and any resulting international conference, exhibition, performance program or publication will have research products and proceedings disseminated in English and the language of the collaborating country. The media used will take a variety of forms as appropriate (books, recordings, photographs, data files, videotapes and discs, films, etc.). Physical facilities will include an exhibition gallery, symposium hall, seminar rooms, classrooms, a data bank, a reading and listening lounge, a food facility, and research support and administrative spaces. The director of the International Center and staff will seek and select resources and audiences which manifestly advance the Center's goals of cultural explication and dialogue.

The Center's automated data bank will be a unique source of information about objects and archival materials in the Quadrangle and other Smithsonian collections, and eventually about other collections in the United States and around the world. The data bank will make possible information storage, retrieval and transfer of textual, musical, pictorial and motion picture data on natural and cultural conservation issues and methodologies, which will be available to scholarly researchers, popular publishers, students and most especially, to the people involved as keepers of their traditions and environments.

While the primary purpose of the International Center will be to advance Quadrangle objectives in coordination with other elements, the Center also, on occasion, will serve as a meeting place for international groups visiting Washington, D.C. under Department of State or similar auspices. Such meetings will be arranged not simply as an accommodation, but more importantly, as a means of involving important and influential persons in the activities of the Quadrangle.

The International Center also will be responsible for coordinating the presentations in the third-level exhibition hall, the International Exhibition Gallery. The Sackler Gallery of Art and the National Museum of African Art will make regular use of this facility. The Center for Islamic Arts and Culture, though lacking collections of its own, may in fact attract appropriate exhibitions. In the normal course of work, the Smithsonian Institution Traveling Exhibition Service will mount shows consistent with Center objectives. The Department of Anthropology, in demonstrating the contributions of ethnography to area understanding, may find the gallery to be useful. Experience and the imaginative planning of all elements will be the actual determining factors governing use.

The International Center will be life-centered in its concerns, Institution-wide in its perspective, worldwide in its focus, and research and service-oriented in its commitment. The content of its various projects will depend to a large extent on the vision and talent of the researchers, topics selected, opportunities presented, and funding available.

Other Activities:

Exhibitions and workshops produced by the Smithsonian Institution Traveling Exhibition Service will be important components of Quadrangle programming. The Resident and National Associate Programs will be able to use the exhibitions and other educational activities of the Quadrangle as major new resources for their members. These programs will be major users of third-level classrooms for meetings, lectures and other activities. Similarly, the small auditorium will be available for performances.

EXPLANATION OF PROGRAM INCREASE - For FY 1985, an increase of 21 positions and \$1,109,000 is requested for Quadrangle operations. The Sackler Gallery of Art, the National Museum of African Art, the International Center, the Smithsonian Institution Traveling Exhibition Service, and libraries will require increments of operating expenses as follows:

Sackler Gallery of Art (7 positions and \$451,000) - For the Sackler Gallery, an increase of \$451,000 is requested to support 7 positions; to purchase automation equipment for collections management; and for curatorial travel, exhibit design and production; and collections acquisition.

To meet the needs of the receipt, registration and conservation of the nearly 1,000 art objects in the Sackler gift, so as to begin preparing for the inaugural exhibition, its catalogue and related publications, 7 positions and \$251,000 are requested in FY 1985. The positions are a registration specialist, two conservators, a conservation

specialist, an exhibit specialist, a curator, and a secretary. Four of these positions are required for collections management of the objects currently stored at the Museum Support Center. These four positions will work closely with the assistant director and two members of the exhibit staff in managing the objects and preparing for their transfer into the Sackler Gallery in FY 1986. The exhibit specialist will work initially on the inaugural exhibition with the assistant director as well as plan for traveling exhibitions and in-house exhibitions.

Major international exhibitions and acquisitions of exceptional quality expected at the Sackler Gallery require years of organization, research and negotiations. Although the assistant director will devote a great deal of time to future exhibitions, that person also must concentrate on the inaugural presentation. In addition to the assistant director, a full time curator is needed to plan and research future shows. The assistance of a secretary is needed by the assistant director and curator.

Further funding is needed in the amounts of \$35,000 for the purchase of automated equipment for collections management and for use in research and object information, partially in preparation of the initial exhibition catalogue and labels; \$60,000 for construction of case prototypes and fees related to designing and producing exhibit cases for the inaugural exhibition; and \$5,000 for travel funds for the assistant director and other Sackler Gallery staff. An amount of \$100,000 for collections acquisition is sought in FY 1985 to build the collection for exhibitions following the inaugural installation. Many objects from the inaugural show may be loaned by FY 1988, and the Gallery must rely upon traveling exhibitions and additions to the collections for the years that follow the opening.

National Museum of African Art (7 positions and \$210,000) - As a repository of valuable collections from sub-Saharan cultures, the National Museum of African Art will form a foundation of the Quadrangle. Temporary exhibitions at the Museum will be planned at least three years in advance of openings. In addition to the Museum's collections, maximum use will be made of important objects borrowed from other museums and institutions to provide a broader coverage. Traveling exhibitions assembled by other sponsors will be used to the extent that they have artistic and cultural merit and can be installed in conformity with the central objective of the Museum.

The responsibility for accessioning art objects, storage of the collection, loan and insurance negotiation and shipping arrangements for incoming and outgoing loans is handled presently by one registrar. Heightened emphasis on proper collections inventory procedures as well as significantly increased loan exhibition activity, necessitate requesting two additional positions and \$35,000 for an assistant registrar and a clerk/typist to handle the attendant volume of work.

At present there is no ongoing program for conservation and documentation of the permanent collection and such a program is essential for the safekeeping of these invaluable items. Therefore, in FY 1985, 1 position and \$27,000 is requested for a chief conservator to establish a comprehensive program designed to protect and preserve the Museum's collections.

As the Museum prepares for expanded activities and increased public attendance in the Quadrangle, each department is undergoing evaluation to assure more efficient, effective and productive operations. Given substantially increased collection growth and development, the Museum requests 1 position and \$22,000 for a curatorial assistant to assist with the Museum's collections management responsibilities.

With increased emphasis on expanded exhibitions and accompanying research, the Museum is continuing to develop an exhibit-associated publications program. In order to assure the production of attractively designed and well written catalogues and brochures

which communicate the form and substance of each exhibition to the public, 2 positions and \$44,000 are requested for a writer/editor and a graphics designer. Another aspect of such in-house graphic design capability will be the production of labels, maps and other graphics materials for exhibitions, as well as education fliers and public orientation materials.

To assist in the production of a well designed and efficiently installed series of exhibitions, the Museum is requesting 1 position and \$32,000 for the addition to the permanent staff of a professional exhibit designer. At present, this function is performed by members of the curatorial staff whose expertise should be focused more appropriately on the research, documentation and care of the collection.

In addition, \$50,000 is requested for nonsalary expenses essential for the production, installation, publication and transportation of exhibitions and collections. The expanded activity of the Museum by virtue of relocation to the Quadrangle requires adequate support costs to meet the goals of the Museum.

The International Center (2 positions and \$100,000) - Two positions, for a program manager and a secretary, and funds to establish office functions, are requested to provide the lead-time necessary to plan and develop the programs of the International Center in consultation and collaboration with the other program units in the Quadrangle as well as with other Smithsonian entities as they develop exhibition and education plans. Work will start on the master calendar and on the implementation of supplementary and supportive projects that will integrate and strengthen overall Quadrangle operations.

In addition to the \$100,000 in Federal Funds needed in FY 1985, several hundred thousand dollars in Trust Funds will be used in order to ensure that the International Center can fulfill its responsibilities to develop the data bank and research, exhibition, conference, and performance programs for the Center's opening and for the years immediately thereafter. The exigency to identify such funds stems from the fact that three to four years lead-time is needed to plan scholarly programs such as those which will be organized by the International Center. A staff needs to be in place and researchers in the field in FY 1985 to ensure that adequate planning and preparation may take place.

Smithsonian Institution Traveling Exhibition Service (3 positions and \$45,000) - The Traveling Exhibition Service (SITES) is the most experienced unit of the Smithsonian Institution organizing, producing, and maintaining traveling exhibitions nationally and internationally. SITES will continue to cooperate with museums on the Mall and elsewhere to plan exhibitions reaching a wide audience. SITES is now producing approximately 32 exhibitions a year. Often these exhibitions are not seen in Washington, D.C. due to limited exhibition space on the Mall. However, a number of SITES exhibitions will be installed, as appropriate, in the Center's galleries. a Washington, D.C. showing at the Smithsonian Institution has become a necessary ingredient in proposals and negotiations with foreign organizers, institutions, and museums. In the end, museums throughout the United States benefit.

SITES' present space is inadequate to fulfill its needs. The new spaces that SITES will occupy in the Quadrangle include an introductory gallery, a publications sales area with storage, a reception area, a library, two meeting rooms, an educational workshop, a lounge, a vault, and service areas.

The small introductory gallery within the offices of SITES is an area for small exhibition presentation to acquaint potential lenders and traveling exhibition borrowers with SITES. Here too, borrowers will become acquainted with the rules to follow to insure the safety of the objects in the exhibitions. Other essential functions will be

addressed such as complementary educational information, samples of publicity efforts, publications, and installation techniques. Photographs of exhibitors' installations of SITES exhibitions also will be shown. SITES requires for FY 1985 a graphics technician who will be responsible for the graphic needs of this gallery.

The educational workshop facility is an area that will be used for a variety of purposes including visits from groups to test materials for traveling exhibitions. These materials include slides, games, and educational kits. The workshop facility also will be used for museum educators from different parts of the country to evaluate the content of exhibitions on display and their impact on local communities. Special workshops (in seminar format) will explain silkscreen methods, labeling standards, printing, and other techniques. This area also will be used for SITES exhibitors to test the educational programming, publicity, audience development, exhibition design, and other elements pertinent to traveling exhibitions. SITES is requesting an educational workshop coordinator who will schedule all events and visitors throughout the year, and one secretary to support the workshop program.

Library Activities (2 positions and \$303,000) - Since the goal of the Quadrangle is to be an educational and research center for non-Western cultures, close cooperation between the National Museum of African Art library and the library of the Center for Asian Art is both important and necessary. Through a central automated catalogue now under development by the Smithsonian Institution Libraries, both libraries will be able to provide their users with a rapid bibliographic search and a corresponding savings of time and effort in locating relevant volumes. An accompanying "Guide to the Libraries" would describe the overall collections and provide a floor plan showing public access points. This guide would be available to visitors at various locations throughout the Quadrangle.

The African art branch library plans to develop a collection that can support the research that the new Center will encourage. As a relatively new library, however, the present African art branch library is inadequate, lacking most of the basic primary and secondary material that advanced scholarship requires. The acquisition of an estimated 9,000 carefully selected volumes will increase the size of the collection to 15,000 which is considered the minimum needed to support competent research in the field. These materials will be purchased over a three-year period at a total cost of about \$650,000. Cataloguing these volumes also will take three years at a cost of \$160,000.

In FY 1985, two library technician positions and workyears and \$56,000 are requested for the Quadrangle libraries to develop a comprehensive program of user services. An amount of \$192,000 is sought for the purchase of library materials and \$55,000 is required for cataloguing of these materials.

ADMINISTRATION

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	256	10,970	165	6,907	-	314	-	82	-	-
FY 1984 Base /1	257	11,872	164	6,951	-	124	-	64	-	-
FY 1985 Estimate	257	12,064	166	7,732	-	33	-	53	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Uncontrollable Increases	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>257</u>	<u>0</u>	<u>0</u>	<u>257</u>
11 Personnel Compensation...	7,729	19	36	7,784
12 Personnel Benefits.....	1,401	1	4	1,406
21 Travel.....	76	5	-	81
22 Trans. of Things.....	27	1	-	28
23 Rent, Comm. & Utilities..	246	17	-	263
24 Printing & Reproduction..	147	3	-	150
25 Other Services.....	883	35	-	918
26 Supplies & Materials.....	451	30	-	481
31 Equipment.....	<u>912</u>	<u>41</u>	<u>-</u>	<u>953</u>
Total	<u>11,872</u>	<u>152</u>	<u>40</u>	<u>12,064</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Administration activity grouping includes central management oversight and services provided by the Offices of the Secretary, Under Secretary, Assistant Secretary for Administration, General Counsel, Treasurer, and the Coordinator of Public Information. It also includes specialized administrative and technical offices reporting to the Assistant Secretary for Administration, which include the offices of Contracts, Equal Opportunity, Director of Facilities Services (responsible for the Offices of Design and Construction, Plant Services and Protection Services), Information Resource Management, Management Analysis, Personnel Administration, Printing and Photographic Services, Programming and Budget, Supply Services, and Travel Services. Offices reporting to the Treasurer include Accounting and Financial Services, Grants and Risk Management, and Business Management. Offices reporting to the Coordinator of Public Information include Congressional Liaison, Public Affairs, and Special Events. Funding

also includes the International Exchange Service and the Workers' Compensation account.

Overall, these organizational units receive both appropriated funds and nonappropriated unrestricted Trust funds for their operating support in approximate balance to the funding of the Institution. Some offices, however, such as the Contracts Office, Grants and Risk Management, and Business Management are funded entirely with nonappropriated Trust funds reflecting the nature of their work. These organizational units provide support and services to all programs and activities of the Institution. For FY 1985, an increase of \$40,000 is sought to assist with the personnel management function. No new position is being requested as one will be reallocated from current workyear resources. Necessary pay of \$207,000 is required for current staff and an amount of \$132,000 is required to compensate for the effects of inflation in non-salary areas of expense. A reduction of \$187,000 is included in this line item reflecting the anticipated savings resulting from reductions of grades 11 through 15. This reduction is discussed in the Uncontrollable section of this budget.

PROGRAM - Within this activity grouping, the Office of the Secretary with the assistance of the Office of the Under Secretary is responsible for management and administration, including policy determination, program planning, legislation, financial management and the direction and review of performance of activities. The Office of the Assistant Secretary for Administration, including the Director of Facilities Services, is responsible for administrative and technical services and for design, construction, building operation and maintenance, and protection services. The Office of Audits, which reports to the Under Secretary and to the Audit and Review Committee of the Board of Regents, is responsible for performing all internal auditing and the external audit program of the Smithsonian. The internal audit function includes auditing Federal programs as well as Trust-funded activities on a recurring basis. The Office reports the results of audit findings and makes recommendations to aid management at all levels of program administration. The external audit function involves the audit of documentation in support of claims, cost proposals and cost and pricing data arising from contracts, grants, and other financial agreements.

The Office of the General Counsel provides counseling to the Smithsonian Board of Regents, the Secretary, and to the other executive and program offices on all legal matters involved in Smithsonian administration; coordinates and oversees the conduct of litigation and other adversary proceedings to which the Institution is a party; reviews administrative claims arising out of Smithsonian operations; and generally monitors all aspects of Smithsonian operations for legal implications vis-a-vis new developments in the law. Such matters include: the fiduciary obligations and responsibilities of the various museum boards and officials in executing their duties; the conformance to Smithsonian standards of conduct by its employees; fiscal policies and procedures required for federally appropriated funds, as well as trust principles applicable to the Institution's endowment funds; employment policies and procedures, involving the civil service laws, the civil rights laws, and labor laws; national and international legal requirements, procedures, and ramifications pertinent to scientific field studies and research, and to the importation and exportation of exhibitions, art works, and cultural property; the impact on Smithsonian activities of environmental and endangered species laws; contract awards and agreements, and claims and disputes arising therefrom; collections management vis-a-vis purchases, gifts and bequests, loans, and deaccessions; intellectual property rights arising out of publishing, performing arts, and collections activities; and real and personal property transactions.

The Office of the Treasurer has direct responsibility for financial management. This includes the direction of financial planning, accounting, payroll, financial reporting, administration of grants and insurance, handling of bank relations, oversight of investments, and management of certain auxiliary activities. Components of

the Office of the Treasurer include Accounting and Financial Services, Grants and Risk Management and various Business Management Offices, including Museum Shops, Mail Order Division, Product Licensing, Concessions and Parking operations.

The Office of the Coordinator of Public Information is composed of the Offices of Congressional Liaison, Public Affairs and Special Events. These offices are responsible for providing information about the Smithsonian and its programs to the general public and the Congress, for developing and overseeing legislation pertaining to the Institution, and for coordinating special events associated with exhibit openings, lectures and other presentations. The Office of Public Affairs is responsible for acquainting the public, via the communications media, public information programs and other means, with programs and policies. It uses news releases, the Smithsonian News Service, other feature articles, calendars of events, radio-TV public service announcements, guides, visitor brochures and other publications, and contacts with individual journalists and news conferences to inform the public. The Office also produces a monthly staff newspaper.

The Contracts Office assists in obtaining Federal grants and contracts for special programs and projects, negotiates certain specialized contracts and manages components of the Trust personnel benefits program.

The Office of Equal Opportunity plans, coordinates, and monitors a positive action program to provide equality in employment practices and program activities. Major efforts include the setting of goals and monitoring action to correct under representation in employment of minorities, women, and the disabled; assessing program and facility access for disabled persons; providing employee counseling and complaints resolution; developing and overseeing Upward Mobility, Hispanic, and women's programs; and meeting community and national outreach responsibilities through exhibits and other information on the Institution.

The Office of Information Resource Management (OIRM), established in 1982, encompasses a number of planning, management and automation functions. OIRM planning is directed toward enhancement of the information resources of the Institution--its cultural objects, scientific specimens, books and manuscripts, and its administrative information concerning people, funds and the like. Planning is based on program needs of bureaus and offices defined by those organizations under the technical leadership of OIRM staff. OIRM management focuses on the cost effective use of technology to support defined program needs and on the emerging area of data administration. Data administration is the management of computer data bases, which are becoming larger and more complex, and must be carefully tended to ensure their useability and security. OIRM's automation functions involve technology assessment to ensure that the Smithsonian uses the most appropriate technology from the market place; and the systems analysis, computer programming, and computer operations involved in the development and use of computer systems.

The Management Analysis Office provides a wide range of staff assistance and advisory services in support of Smithsonian administrative operations. The Office performs studies of organization, systems and procedures; prepares and distributes management issuances containing policy and instructions governing operations; and conducts the Institution's forms management program.

The Office of Personnel Administration provides personnel services, advice and assistance to managers and employees of the Institution. Within the laws, rules and regulations of relevant controlling agencies and within the policies of the Institution, the Office has functional responsibility for recruitment, staffing, position classification and wage administration, performance appraisal, merit pay, and employee relations. It also provides for union-management relations, employee training

and career development, employee assistance, retirement counseling, employee benefits processing, workers' compensation, unemployment insurance processing, records and data maintenance and processing, personnel policy development, and personnel program evaluation.

The Office of Printing and Photographic Services is the central office for technical advice, guidance and production on photography and duplicating services to curatorial, scientific, technical and administrative staff. Photographic services include studio and on-site photography, photography of related field work, photographic copy restoration, printing, preservation of originals under archival conditions, the development and maintenance of an automated catalogue of photographs, and sales of materials to the public.

The Office of Programming and Budget formulates the consolidated Federal and nonappropriated Trust fund budgets for review and approval by the Secretary and the Board of Regents. Approved budgets are developed for submission to the Office of Management and Budget (OMB) and to the Congress, and the Office serves as liaison with both the OMB and the Congress on budgetary matters. Appropriated and nonappropriated Trust fund budgets are administered and monitored to help assure that program needs are met, budgetary goals are achieved and that accountability is maintained. The Office participates in the development of the Five-Year Prospectus and advises management on matters pertaining to program planning and development.

The Office of Supply Services is responsible for the policy, planning and coordination of the procurement, contracting, property management and supply program. The Office procures supplies, materials, contractual services including construction, and equipment for research, curatorial, conservation, exhibit preparation, administrative and other Smithsonian activities. Programs for business with small, minority and women-owned firms are set and monitored. The Office also maintains all property records and performs and oversees the regular equipment inventories and boards of surveys to ensure proper accountability, utilization and security.

The Travel Services Office plans itineraries and makes arrangements for travel to be accomplished efficiently and economically with particular attention to saving funds by the use of contract and discount fares. Information is gathered and made available to staff on accommodations, car rentals and other services. In coordination with the accounting and management analysis offices, policy and procedural materials on travel are prepared for staff use.

Efforts are underway to terminate the International Exchange Service over the next year as shipments in transit are processed and users notified to cease further shipments.

Progress in Administrative Support - Major emphasis over the past year and continuing for the current and budget years includes the development of the Quadrangle project, the supervision of the administrative and support activities to assure their responsiveness to needs, and strengthening of the Institution's equal opportunity and affirmative action programs. Continued attention is being given to legal oversight of and counseling on the Smithsonian's programs and improvement of financial management, accounting, monitoring, reporting, and auditing systems to assure control and accountability as a public responsibility. A number of specific developments merit reporting in the areas of personnel and financial management, equal opportunity, management information systems, public information and photographic services.

Personnel management efforts have emphasized the requirements of the Civil Service Reform Act of 1978 and anticipation of the proposed Performance Based Management System. Performance appraisal, merit pay, incentive awards and other systems are being monitored

and improved as necessary. Policy and procedural materials are being examined, evaluated and revised to assist Smithsonian bureaus and offices in good personnel practices. New recruitment pamphlets and fact sheets are being developed to assist applicants. With regard to financial management, during FY 1983, the number of Accounting Service Units was increased to nine. Located in various Smithsonian facilities and linked by computer terminal to the central Accounting Office, these units expedite processing of accounting documents, thereby enabling more timely payments to vendors and better cash management.

In the area of budget formulation, the Office of Programming and Budget worked during FY 1983 and FY 1984 to initiate two changes geared to providing more efficient and accurate transmission of budget data: 1) the Office is participating in a project sponsored by the Office of Management and Budget (OMB) to enter the Institution's Federal budget schedules directly into OMB's computer data base system; and 2) the Office revised the format of the OMB budget justification in order to relate the OMB document more easily with the Congressional budget justification. In addition, the Office continued its efforts to improve the understanding of the Federal and Trust budget policies and procedures within the Institution through the presentation of seminars and the development of a draft version of a Smithsonian Budget Procedures Handbook.

Equal opportunity efforts are having some success with improvements in representation of minority persons and women in professional jobs and in the upper grades. There has been steady improvement in program and facility accessibility for disabled persons. Greatly expanded opportunities for training and career development are available for minority students and scholars. The Smithsonian has developed working relationships with Washington, D.C. universities and with the historically black colleges and universities. Under the auspices of the Office of Fellowships and Grants, many internship appointments and faculty fellowships are being made primarily from these schools. The Office of Elementary and Secondary Education's new Career Awareness Program for high school students has been met with great enthusiasm by the District of Columbia Public Schools. In addition, there have been special actions to provide information, assistance and exhibits to minority and women's groups and organizations. Goals for procurement from small and minority businesses were met.

In the area of information management, the most significant development has been the establishment of a central office to provide planning, direction and technical support. The Institution anticipates funding central processors with Trust funds in an extension of the present computer cost center. Federal funding will support the development and acquisition of major Institution-wide software applications. A contract for the first of these software packages, a bibliographic information system to be used by the SI Libraries and other bureaus, was awarded in FY 1983, with funding provided by Congress for this purpose. Reevaluation of requirement statements for the personnel/payroll system is underway, combined with preparation for requirements analysis in related areas of financial management. In-depth requirements analysis for automated support of financial management will occur in FY 1985 under the joint sponsorship of the Office of Information Resource Management and the Office of Accounting and Financial Services. Comprehensive systems requirement studies, to support object collections systems software acquisitions, were completed in June 1983. Development of specifications for commercial software to support object collections management and research is well underway, and this software will be procured in FY 1984. Communications systems requirements were gathered by July 1983, with the major decisions on data communications to be made in January 1984. Plans for physical communications links in older buildings were begun in FY 1983; and comprehensive plans will be established late in FY 1984 to ensure coordinated development of raceways for data processing, office automation, image, security, and voice communications systems. Training funds will be used in FY 1984 for OIRM and other SI staff involved with the bibliographic systems; for OIRM staff, once the object collections

information system is selected; for communications system purposes; and for OIRM and other Smithsonian staff to support requirements analysis in several areas.

Among public information services, the Smithsonian News Service provides the daily and weekly press with a regular package of four articles on art, history and science subjects. Over 1,400 newspapers, with a total combined readership of 40 million persons, are using News Service articles. Readership of the monthly Calendar of Events is close to two million persons in the Washington, D.C. area. Radio and television public service announcements are helpful to prospective visitors. The results of a test public service announcement offering a "trip planner" by mail are being studied. More than one million copies of English and foreign language information brochures are used by visitors annually. A special guide for disabled persons has been issued and revised to include improvements in accessibility of facilities.

In the Office of Printing and Photographic Services, the important effort to convert hazardous nitrate negatives to safety film continued during FY 1983. In addition to working with the central photograph files collection, conversion work also was done on the collection of the National Anthropological Archives, Pullman Railway Collection, Cheney Collection, Juley Collection, Mechanical and Civil Engineering Collection and others. In addition, major emphasis was placed on managing the inventory photography projects for the National Museum of American History's jewelry, Numismatics and Philatelic collections. During the year, improved storage conditions were added to the Office's environmental cold storage room which will further ensure the preservation of the photographic collection.

EXPLANATION OF PROGRAM INCREASE:

Computer/Personnel Management Specialist (\$40,000) - For FY 1985, an increase of \$40,000 is sought for the Office of Personnel Administration to fund one professional position to manage and supervise the processing of personnel actions and the maintenance of the personnel data base. This activity feeds the Central Personnel Data File maintained by the Office of Personnel Management and is also the essential first step in the data collection and input to payroll, budget, equal opportunity and benefits data systems. The increasing volume and complexity of data collection and coding requires a personnel management specialist to oversee processing to assure accuracy, timeliness and integration with other personnel functions. For example, to manage effectively the unemployment insurance program requires an accurate and timely data base regarding a former employee's initial appointment, employment history, date of termination and reason for termination. An accurate and timely data base also is required for other personnel actions such as reductions in force, promotions, merit pay and incentive awards. Furthermore, the analysis and utilization of employee data in the Personnel Data File should become more important in the determination of day-to-day personnel decisions as the Performance Based Management System, performance appraisal, and other Civil Service reforms mandate new requirements and procedures for Federal personnel management. This person also will be responsible for liaison with OIRM to assure that personnel data needs are taken into account in any modification of an automated data system. No new position is being requested as one will be reallocated from current workyear resources.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funding of these centralized services from both Federal and nonappropriated sources produces a ratio of Federal and Trust fund administrative support approximately in proportion to the operating program expenditures of the Institution as a whole. The amounts shown under Unrestricted General represent administrative expenditures for those units that are organizationally under Administration. Certain other units, receiving administrative allotments, are reflected

in the appropriate section of this budget request. For example, administrative costs for the Smithsonian Astrophysical Observatory (SAO) are reflected within SAO's nonappropriated Trust funds section. Also included are expenditures for producing, distributing and marketing photographic material and slide sets, and funds to help defray the costs of the Office of Printing and Photographic Services. A program allotment is made to the Office of Equal Opportunity to support community outreach through exhibits and publications, specifically aimed at women and minorities. Funds also are provided for amortizing the costs of the development and implementation of the personnel/payroll system which is designed to provide a consolidated information base for a wide variety of personnel, budgetary and other financial data. Special Purpose funds include gifts received through unrestricted bequests, which in accordance with the Bylaws of the Board of Regents, are subsequently transferred to endowment. Anticipated expenditures in the Special Purpose category include support of studies in ornithology and small amounts used for legal seminars, research, property taxes, Quadrangle film project, and expenditures of the Smithsonian Women's Committee.

Restricted Funds - Included in this category are endowment bequests and foundation grants for scientific research publications, and annuity payments to a former Under Secretary.

OFFICE OF DESIGN AND CONSTRUCTION

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	35	1,557	8	266	-	-	-	-	-	-
FY 1984 Base /1	36	1,840	7	271	-	-	-	-	-	-
FY 1985 Estimate	36	2,036	7	298	-	-	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Necessary Pay and Inflation</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>36</u>	<u>0</u>	<u>0</u>	<u>36</u>
11 Personnel Compensation...	1,314	25	32	1,371
12 Personnel Benefits.....	128	3	3	134
21 Travel.....	13	-	-	13
22 Trans. of Things.....	2	-	-	2
23 Rent, Comm. & Utilities..	38	1	-	39
24 Printing & Reproduction..	37	1	-	38
25 Other Services.....	217	11	115	343
26 Supplies & Materials.....	58	3	-	61
31 Equipment.....	<u>33</u>	<u>2</u>	<u>-</u>	<u>35</u>
Total	<u>1,840</u>	<u>46</u>	<u>150</u>	<u>2,036</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of Design and Construction (ODC) provides professional architectural and engineering services to the Institution in support of the development, operation, maintenance, repair and improvement of its physical plant. ODC administers the Institution's Restoration & Renovation of Buildings (R&R) program and provides short- and long-range planning and feasibility analyses, design and engineering analyses, project management and cost and budgetary estimates. It also performs contract negotiation, contract supervision, general construction administration and management, interior design, space utilization planning and technical consulting support. For FY 1985, an increase of \$150,000 is requested to provide additional funding for architectural and engineering services (\$115,000) and to hire a construction analyst

(\$35,000). No new position is being requested as one will be reallocated from current workyear base resources. Necessary pay of \$28,000 is required for existing staff and an amount of \$18,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Office of Design and Construction provides planning, engineering, architectural and related administrative services for all construction, renovation and repair projects to the Institution's facilities located in the Washington, D.C. metropolitan area, as well as at the Smithsonian Environmental Research Center in Maryland, the Whipple Observatory in Arizona, the Cooper-Hewitt Museum in New York and the Tropical Research Institute in Panama. ODC's staff of electrical, mechanical and structural engineers, architects and construction managers is supplemented by a staff of architectural and engineering draftsmen, specification writers and administrative support personnel.

The primary objective of ODC is to administer the Institution's Restoration and Renovation of Buildings (R&R) program. Consequently, ODC's workload is related directly to the size of this program, which has increased from \$2,100,000 in FY 1979 to \$9,000,000 in FY 1984 and a proposed \$13,750,000 in FY 1985. The growth of the R&R account reflects the Institution's priority to ensure the adequate maintenance of an aging and complex physical plant, to upgrade fire detection and suppression systems, to correct unsafe conditions and eliminate architectural barriers, and to reduce energy consumption.

Administration and support of the Institution's R&R program involve the development of facilities' master plans, detailed project designs and specifications, architectural and engineering studies of buildings' operating problems and functional deficiencies, and planning of future year physical plant projects and budget estimates. The Office negotiates, reviews and supervises architectural and engineering design contracts and construction contracts; performs architectural and engineering feasibility studies and analyses; and maintains a central library for cataloguing, filing and identifying all plans, drawings and specifications related to Smithsonian buildings and properties. In addition, ODC provides support for other projects involving the construction, renovation and modification of facilities, such as reviewing designs prepared by the museums' exhibit staffs to ensure compliance with safety, health, accessibility and other technical standards. Expertise also is provided to Smithsonian executive staff on matters relating to planned construction and facility development or utilization.

EXPLANATION OF PROGRAM INCREASE:

Architectural and Engineering Services and Cost Analyst (\$150,000) - Consistent with its responsibility and commitment to maintaining the museums and other buildings and providing for future facility needs, the Institution is embarking upon a carefully planned, integrated improvement program involving restoration, renovation, and repair of existing facilities and the planning, design and construction of additional facilities essential to future programmatic needs. The increased level of funding for the Restoration and Renovation program requested for FY 1985, coupled with ongoing planning of major restoration and renovation initiatives in subsequent years, illustrates this commitment toward strengthening preventive maintenance and improvement programs to better the condition of existing facilities and a comprehensive and creative process of planning for and meeting future facilities requirements.

In order to assure the essential program support for the increased workload in the Office of Design and Construction resulting from the Institutional commitment to facilities management, a corollary increase of \$150,000 is requested for FY 1985 to provide additional funding for the necessary architectural and engineering services (\$115,000) and to hire a construction analyst (\$35,000). No new position is being requested as one will be reallocated from current workyear resources.

Professional architectural and engineering services, provided by contract, are utilized in the planning, design, and development of construction contract documents and construction management. With available resources of approximately \$100,000 currently used to provide these contractual services, the requested increase would result in the sum of \$215,000 applied to architectural and engineering services, permitting ODC to maintain the capability of addressing the projected workload increases in a most cost-effective manner. Furthermore, the addition of a construction analyst would provide the necessary in-house expertise to develop cost estimates for construction projects and to review the cost estimates provided by outside contractors for bidding and change orders, as well as estimates prepared by architectural and engineering firms for bid documents, to insure that these estimates are reasonable, cost-efficient, and in accordance with the work required. The preparation of these detailed construction cost estimates is a Federal regulatory requirement for all construction work performed by contract and for all change order proposals and contract amendments to provide a basis for determining the legitimacy of proposed costs.

The requested increase for these contractual services and staffing, moreover, would assist ODC in fulfilling one of its major objectives in the management of construction projects--to minimize the escalation of construction costs due to inflationary factors during the period between the approval of a project and the issuing of construction contract documents.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds are provided by an allotment used primarily to cover salaries and some support costs (estimated expenditures of \$271,000 in FY 1984 and \$298,000 in FY 1985) reflecting the fact that ODC provides services for Trust funded as well as Federally funded projects.

OFFICE OF PROTECTION SERVICES

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount
FY 1983 Actual	573	14,588	-	5	-	-11	-	-	-	-
FY 1984 Base /1	629	15,669	-	7	-	15	-	-	-	-
FY 1985 Estimate	629	16,367	-	7	-	20	-	-	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	FY 1984 Base /1	Necessary Pay and Inflation	Program Increases	FY 1985 Estimate
FTE Allocation.....	<u>629</u>	<u>0</u>	<u>0</u>	<u>629</u>
11 Personnel Compensation...	11,262	281	-	11,543
12 Personnel Benefits.....	1,103	29	-	1,132
21 Travel.....	28	2	-	30
22 Trans. of Things.....	5	-	-	5
23 Rent, Comm. & Utilities..	120	6	-	126
24 Printing & Reproduction..	5	-	-	5
25 Other Services.....	2,400	94	40	2,534
26 Supplies & Materials.....	161	8	4	173
31 Equipment.....	580	28	206	814
42 Insur. Claims & Indem....	<u>5</u>	<u>-</u>	<u>-</u>	<u>5</u>
Total	<u>15,669</u>	<u>448</u>	<u>250</u>	<u>16,367</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of Protection Services (OPS) is responsible for security, fire protection, safety, and health programs of the Smithsonian. In FY 1984, Congress appropriated an additional \$700,000 for acceleration of the installation of the proprietary security system. For FY 1985, the Institution proposes to retain the \$700,000 to continue installation of the system. For FY 1985, an amount of \$680,000 is requested for the upgrading of security systems. This is an increase of \$200,000 above the FY 1984 base for this purpose. Also, an amount of \$50,000 is requested to support the Occupational Health Program. Necessary pay of \$310,000 is required for existing staff and an amount of \$138,000 is sought to compensate for the effects of inflation in nonsalary areas of expense.

PROGRAM - The Office of Protection Services provides security, fire protection, safety, and health services for visitors and staff of the Smithsonian Institution. The authority of OPS to administer these programs derives from Public Law 82-206 and Public Law 88-391, which relate to the policing of Smithsonian buildings and grounds, and from Public Law 91-596 and Executive Order 12196, which relate to occupational safety and health.

The Office of Protection Services provides a full range of protective services through the efforts of a large security force and a professional and administrative staff that includes training specialists, safety specialists, industrial hygienists, fire protection engineers, alarm system specialists, investigators, and museum security specialists. The security force provides physical security 24 hours a day, every day of the year, at the Cooper-Hewitt Museum in New York City, and at 11 major museums and art galleries and at other major work, research and storage facilities in the Washington, D.C. area. The professional staff conducts in-depth studies of protection needs, escorts valuable shipments, formulates long-range plans for improved security and safety, operates a personnel security program, and installs and maintains alarms, including equipment for the new proprietary security system. The Office provides technical assistance and advisory services even in bureaus and facilities in which the security force does not operate, and it administers occupational safety and health programs for the National Zoological Park, the Smithsonian Tropical Research Institute, the Smithsonian Environmental Research Center, and the Smithsonian Astrophysical Observatory. In all, the Office is responsible for the protection of more than 5,000 employees, millions of visitors each year, the many facilities of the Institution, and the millions of valuable collection items.

The security force operates 24 hours a day, seven days a week, to monitor conditions and activities in and around the buildings they protect, to enforce museum regulations, and to intervene in case of crime, accident, or other emergency. Uniformed guards, plainclothesmen, and K-9 officers are assigned in the galleries, around the grounds, and at entrances during the day and night. Coordinating their activities through the use of a radio network, security officers respond to alarm signals, conduct security and fire patrols after the museum buildings are closed to the public, investigate accidents, report fire and safety hazards and malfunctions of mechanical and electrical equipment, and provide information to museum visitors. Security coverage is based on the concept of posts--the areas for which security officers are responsible. A post may be one point (for example, a museum entrance) or an area whose boundaries are determined by such factors as its use; crowd conditions; the value of objects on display; the vulnerability of those objects to accidental damage, vandalism, or theft; the effective field of vision of the assigned protection personnel; and the ability to use electronic devices. The number of guards required to staff one post may vary from one (for a post staffed eight hours a day, five days a week) to five (for a post staffed 24 hours a day, seven days a week).

The Congress funded 48 new guard positions in FY 1984 of the Institution's stated need of 115 positions. The 48 positions are located at the National Museum of Natural History/Museum of Man (12), the Arts and Industries Building (2), the National Museum of American History (7), the National Museum of American Art and the National Portrait Gallery Building (12), the National Air and Space Museum (7), the Silver Hill Complex (2), the National Museum of African Art (1), the Hirshhorn Museum and Sculpture Garden (1), and on the Mall (4).

In order to provide adequate security coverage within current staffing limitations, OPS has begun to provide certain services through the use of contracts. In Washington, D.C., the contract undertaken in FY 1981 for operation of checkrooms and elevators that once were staffed by guards has been continued, and the contract for guard services at the Cooper-Hewitt Museum has been continued after a successful trial

period. Although the Institution has had success in contracting for guard services, there are many posts which should not be manned by contract guards due to the sensitive nature of the post.

A key part of the Institution's upgraded protection program involves the conversion to an electronic security and fire alarm system that is completely owned and operated by the Smithsonian. Plans call for the conversion to occur during the next decade. The first phase is now nearing completion at the Museum Support Center. The purposes of converting to a proprietary security system are to gain faster response time to security and fire protection alarms (approximately 230 alarms are responded to each day); to improve the quality of and to control information transmitted from the security devices and fire sensors to the building security offices and the central control room; to manage and control systems maintenance; and to eliminate reliance on leased equipment, outside sources of power and related contractual services, the costs of which are escalating rapidly. The fire detection and security sensors that are elements of this system will be linked to eight local control rooms and to a central control room that monitors all alarm activity and provides emergency backup control. Closed-circuit television controlled by the computer would allow the control room operator to assess a problem. Patrolling guards would be dispatched to the area of the activated sensor for appropriate action. OPS currently has an S&E base of \$440,000 and an amount of \$400,000 is requested for FY 1985 in the Restoration and Renovation of Buildings section of this budget for the proprietary security system, to make building alterations and to purchase permanently installed equipment. In FY 1984, Congress approved an additional \$700,000 to accelerate the installation of this system. The completion of the system is now scheduled for December 31, 1986, three years earlier than planned at a substantially reduced cost.

Fire and safety programs include training in preventive techniques; reviews of construction, renovation, and exhibit installation drawings; regular fire inspections of facilities; and annual safety and industrial hygiene inspections. These measures have resulted in long-range plans for installation of new and upgraded fire detection and suppression systems and for compliance with safety regulations. Fire safety presentations are made to approximately 80 percent of the Smithsonian staff each year. The safety staff works to eliminate hazards and accidents and occupational illnesses. Locations in which asbestos has been discovered are monitored carefully by industrial hygienists, and projects to remove or contain asbestos and to clean areas and objects contaminated by asbestos are proceeding on schedule. The effort to eliminate the dangers of cellulose nitrate film in the Institution's collections also is well under way. Arrangements to provide safety shoes, safety glasses, and other equipment for employees are made as necessary. The safety staff continues to promote safety awareness among employees by coordinating the work of safety committees in every facility, by offering several training programs, and by publishing a safety newsletter for all employees.

Medical services for employees exposed to health hazards on the job or experiencing other job-related health problems now are under the direction of a new medical officer/administrator. The health services staff is developing and implementing effective monitoring programs for employees exposed to hazardous conditions, writing medical standards for employees appointed to certain positions, and developing a program of preemployment physicals. Programs to counsel employees troubled by alcoholism, drug problems, or emotional problems are continuing as are programs to provide immunizations for employees traveling on official business, diagnostic tests for chronic illnesses, and certain treatments ordered by employees' private physicians. Health units are staffed so that qualified medical personnel are available to administer first aid whenever the museums are open to the public.

EXPLANATION OF PROGRAM INCREASE:

For FY 1985, an amount of \$680,000 (an increase of \$200,000 over the existing base of \$480,000) is sought to repair, replace, and acquire new security equipment for the areas where the most serious problems exist in the protection of visitors, staff, and collections. Also sought for FY 1985, is \$50,000 for the Occupational Health Program.

Security Equipment Upgrading (\$680,000) - Much of the security equipment in operation at the Smithsonian has been acquired over a long period of time to correct specific problems or to meet needs as they arise. As a result, the security given to the National Collections is uneven and in some instances inadequate. Several museums have systems which are obsolete or only function intermittently with frequent repairs required. Others have large areas of nonpublic space which are not monitored and where access is not controlled. Based upon comprehensive studies of security conditions at all museums and facilities of the Institution, the Office of Protection Services has identified numerous areas where security systems are not adequate and opportunity exists for theft, break-in, or vandalism. While devices alone cannot provide complete security, they can increase the effectiveness of available security staff. Two facilities which will require particular attention are the National Museum of American History and the National Zoological Park. OPS, therefore, is seeking funds for security devices and equipment in order to continue the program of systems upgrading begun in FY 1983. The following details the equipment requested for FY 1985:

1. Storage Security (\$162,000) - Only about ten percent of the Smithsonian collections is on exhibit; the remaining 90 percent is in collections storage areas. These range from well protected vaults for the highest value items to minimally protected storage rooms, attics and buildings (at Suitland, Maryland and North Capitol Street). Improved security is needed for the stored collections as evidenced by the fact that during the past year several important objects were stolen from collections storage areas in recent years. The Institution has over 70 million objects and specimens in approximately one million square feet of storage space. The requested amount will be used for purchase and installation of contact alarms, card reader systems and electric locks.

2. Perimeter Security (\$150,000) - Although most Smithsonian facilities have adequate security around windows and doors, certain ones lack devices to detect break-ins. To correct this situation balanced magnetic contacts are urgently needed at the National Zoological Park to alarm entrances to the various buildings. The proposed increase will be used to purchase required materials and to provide for installation.

3. Exhibit Cases (\$40,000) - Many of the exhibit cases now in public galleries were designed principally for aesthetics and with insufficient consideration for security. More than 600 exhibit cases have been identified which should be equipped with adequate security devices. The requested \$40,000 will be used to purchase and install detection devices on cases at the National Museum of American History.

4. Closed-circuit Television (CCTV) Surveillance (\$69,000) - CCTVs can be used to extend surveillance over areas which guards are not always available to cover. The proposed \$69,000 will be used for the purchase of 32 additional CCTVs which can be monitored electronically by guards located in control rooms.

5. Replacement of Outmoded Security Equipment (\$154,000) - Security equipment consists of security sensors, alarm devices, contacts, ultrasonic devices, and wiring. Many of these items have an average life of five years and deteriorate with wear and use. An amount of \$154,000 is sought to continue a regular replacement program for obsolete and deteriorated equipment.

6. General Interior Security (\$15,000) - Motion detection devices which are activated by movement in a protected area are needed for nonpublic areas and galleries that are closed during or after normal visitor hours. The problem is particularly acute in areas where public and nonpublic space are adjacent, and where access to nonpublic space can be gained easily since patrolling guards are present only for a minimal amount of time. Apart from providing continuous surveillance, these devices also improve security by reducing the number of nonpublic areas that guards have to cover on a regular basis. The proposed amount of \$15,000 will be used to purchase devices to be installed throughout the Institution.

7. Other Equipment (\$90,000) - Funds are requested in this category for necessary security-related equipment to aid in security patrols. A gas powered Cushman-type vehicle is required at the Zoo to aid police patrols (\$5,000). The game wardens at the Smithsonian Tropical Research Institute need two Boston Whaler boats to navigate and patrol safely the waters and islands at this research center (\$44,000). The Smithsonian Astrophysical Observatory's Whipple Observatory in Arizona needs to replace worn-out portable radios, and to connect the radio system with a phone patch to provide increased security and safety of all personnel working at the Mt. Hopkins facility (\$41,000).

Occupational Health (\$50,000) - The Office of Protection Services is continuing to offer health services on a regular basis to employees at many of the outlying facilities at which health services were not available before FY 1981, and is nearing the final stages of the effort to reorient the Health Services Division so that its primary mission is effective occupational health rather than emergency assistance. The initial occupational medicine program will include pre-employment physicals and continued health monitoring of employees in critically or potentially hazardous job categories. The occupational health program will be supplemented by the safety and industrial hygiene programs. Close coordination among these functions will be required in order to operate an effective program. This coordination will be aided greatly by the use of an information services data processing system. The services to be used on a time-sharing basis would include medical records, industrial hygiene sampling, occupational illness and injury, materials/agents inventory, safety and substance training, material safety data sheets, and audiometers. Some additional supplies and minor equipment will be required to augment the program. The programs that will be significantly improved will be monitoring of employees exposed to asbestos, animal handlers at the National Zoological Park, security personnel, and scientists engaged in underwater research.

The initial physicals will not encompass a large employee population, but the increased laboratory work-ups such as X-rays, urine samples and blood samples, will cost \$17,500 annually; time-sharing for the seven computer programs will cost \$22,500 annually; and increased supplies and equipment will be \$10,000 annually for a total of \$50,000 sought in FY 1985.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These are provided by an allotment and from reimbursements for the use of guard services at special events and for lectures at Smithsonian facilities, and are used for the purchase of supplies, materials, and equipment.

OFFICE OF PLANT SERVICES

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		FEDERAL GRANTS & CONTRACTS	
	FTE*	Amount	General		Special Purpose		FTE**	Amount	FTE**	Amount
		FTP**	Amount	FTP**	Amount	FTP**	Amount	FTP**	Amount	
FY 1983 Actual	394	26,206	5	993	1	14	-	35	-	-
FY 1984 Base /1	387	27,195	5	1,091	1	5	-	1	-	-
FY 1985 Estimate	387	29,066	5	1,174	1	5	-	1	-	-

* FTE = Full-time equivalent

**FTP = Full-time permanent

Detail of Federal Funding

	<u>FY 1984 Base /1</u>	<u>Uncontrollable Increases</u>	<u>Program Increases</u>	<u>FY 1985 Estimate</u>
FTE Allocation.....	<u>387</u>	<u>0</u>	<u>0</u>	<u>387</u>
11 Personnel Compensation...	10,006	235	-	10,241
12 Personnel Benefits.....	1,015	25	-	1,040
21 Travel.....	20	3	-	23
23 Rent, Comm. & Utilities..	14,404	1,190	-	15,594
24 Printing & Reproduction..	7	1	-	8
25 Other Services.....	970	51	-	1,021
26 Supplies & Materials.....	548	28	325	901
31 Equipment.....	<u>225</u>	<u>13</u>	<u>-</u>	<u>238</u>
Total	<u>27,195</u>	<u>1,546</u>	<u>325</u>	<u>29,066</u>

/1 Includes FY 1984 costs of legislated pay raises and workyear allocation adjusted for FY 1985 program increases, if any.

ABSTRACT - The Office of Plant Services (OPlantS) operates, maintains and repairs 12 museums and art gallery buildings and a number of other work and collections storage areas located in the Washington, D.C. metropolitan area and in New York City. OPlantS provides utilities, transportation, mail and telephone services in support of research, exhibit, education and other public programs. In addition, technical service and assistance are made available to other Smithsonian units located outside of the Washington, D.C. area.

For FY 1985, an increase of \$325,000 is requested to provide increased resources for basic contractual services and supplies necessary to allow proper maintenance of all mechanical and electrical systems in Smithsonian facilities. Necessary pay in the

amount of \$260,000 is required for existing staff and an amount of \$107,000 is sought to compensate for the effects of inflation in nonsalary areas of expense. An amount of \$1,179,000 for utilities, postage and communications is being requested in the uncontrollable increases section of this budget presentation.

PROGRAM - I. Office of Plant Services - With base operating resources of 308 workyears and \$10,689,000, (exclusive of the rent and utilities budgets) OPlantS operates, maintains and repairs the Smithsonian's physical plant on or near the Mall, including well over 4.2 million net usable square feet in all museums and art galleries. In addition, it operates, maintains and repairs 82,000 square feet of space in the Cooper-Hewitt Museum in New York City. Services also are provided to other work and storage areas including space in leased facilities. This includes maintenance of building interiors, exteriors and all mechanical and electrical equipment--such as elevators and escalators, lighting and refrigeration components--and emergency repairs to property which must be accomplished by service contract. Operational responsibilities for utilities funding and management include the maintenance of large and complex air conditioning, heating and ventilating systems and electronic environmental control systems for the comfort of visitors and for the protection of buildings, natural history and anthropological specimens and objects, paintings, sculptures and objects of American history and technology. Trade and craft assistance, including carpentry, painting, plumbing, sheetmetal and electrical work, is provided every year to research projects, special public events, office relocations and modifications and exhibition installations at all museums.

OPlantS also maintains a supply warehouse at the Smithsonian Institution Service Center where common and widely used supplies and materials, purchased in bulk to obtain the most favorable price, are stored and distributed. Custodial services, while decentralized to each museum, receive cleaning supplies and equipment from the Office of Plant Services. Packing, crating, warehousing and moving services are carried out for museum objects and collections. OPlantS also has responsibility for communications systems including the management and funding of telephone installations and services (Federal Telecommunications Network System and local calls) and the processing of and payment of mail. Transportation services, repair and operation of vehicles are carried out by the Office as well.

The Computerized Preventive Maintenance System for scheduling preventive maintenance requirements continued to provide for a highly reliable and efficient physical plant operation. The preventive maintenance program schedules periodic attention for all fire prevention, automatic lighting, guard stations, roofing systems and heating, ventilating and air conditioning mechanical equipment in all Washington, D.C. museums, and the Smithsonian Environmental Research Center. Between FY 1981 and FY 1983, there were no equipment failures that could be attributed to a lack of proper maintenance. This record represents a significant accomplishment considering the age of much of the mechanical equipment in the Smithsonian buildings and attests to the reliability and effectiveness of the preventive maintenance program.

The Computerized Facilities Monitoring System, which was completed in FY 1980 and analyzes the operation of various mechanical equipment in major Smithsonian museums, continues to work effectively. The System uses sensors at over 1,893 points on equipment and automatically alerts a central control center to equipment malfunctions. These automatic alerts have aided in avoiding costly repairs during the past several years.

II. Office of Horticulture - With base resources of 38 workyears and \$1,217,000 the Office of Horticulture uses the disciplines of horticulture as an educational, scientific, research, exhibition, and display activity for the Smithsonian Institution.

The Office provides horticultural services to all museums to include interior and exterior landscape management from design through installation and major maintenance; research and development of historically styled gardens for museum grounds and special exhibitions such as "IGA, 1983," an international horticultural exhibit in Munich, Germany; interior plantscapes; management of grounds around museums; and operation of a large greenhouse-nursery complex. Responsibilities of the Office also include exterior buildings and grounds pest control, snow and ice removal from sidewalks, roadways, parking lots and decks in locations on and off the Mall, and trash policing of grounds and flower beds.

III. South Group Buildings Management - With base resources of 41 workyears and \$975,000 South Group Buildings Management is responsible for the cleaning, minor maintenance, labor services, relamping, craft services, shipping and receiving, special events, contract coordination for maintenance, trash removal, pest control and renovation projects for the Arts & Industries and the Smithsonian Institution Buildings. Because of the frequent use of the two buildings for large and complex events, higher than normal levels of maintenance and cleaning must be provided. Services are provided on a seven-days-a-week basis. Additional demands will be placed on staff during the construction of the Quadrangle and renovation of the exterior of the Arts and Industries Building.

EXPLANATION OF PROGRAM INCREASE:

Supplies and Services Base Deficiency (\$325,000) - For FY 1985, an increase of \$325,000 is sought to partially correct a shortage of base funds for contractual services and basic supplies used extensively by the Office of Plant Services in maintaining Smithsonian buildings and in making emergency repairs to mechanical and electrical systems. Experience during past years has shown that, despite inflationary increases, large sums still have had to be reprogrammed from research, exhibitions and collections management programs of museum and research organizations in order to defray base shortages. The base shortage problem dates back to approximately 1977, and is primarily attributable to the dramatic inflationary increases in the price of oil-based products used for electrical, plumbing, paint, carpentry and mechanical maintenance and repair. The Smithsonian's inflation requests beginning in FY 1981 did not address the cumulative reductions in purchasing power since 1977 when the annual rate of inflation for oil-based products jumped 20-25 percent. While the rate of inflation has begun to slow in the past couple of years, existing base funds still are not adequate to purchase needed supplies and services at the same level each year.

The following examples illustrate the effect that inflationary price increases have had in creating the base shortage. The cost of the elevator maintenance contract has risen from \$223,000 in FY 1979 to \$273,000 in FY 1983; the uniform cleaning contract has risen from \$33,000 in FY 1979 to \$71,000 in FY 1983; OPlantS' power management and equipment monitoring computer contract has increased from \$13,000 in FY 1979 to \$23,000 in FY 1983. A carton of plastic bags used for trash collection has increased from \$13.40 in FY 1979 to \$20.66 in FY 1983; number 12 electrical wire has risen from \$14.68 a coil in FY 1979 to \$33.25 in FY 1983; a gallon of white paint has risen from \$6.49 in FY 1979 to \$9.21 in FY 1983; and a sheet of 4' x 8' x 1/2" of plywood has risen from \$16.77 a sheet in FY 1979 to \$20.50 in FY 1983. These contract and material samples represent an average 36 percent increase in costs for FY 1983 over FY 1979. Similar increases have been experienced over this period in almost all mechanical, custodial and craft supplies and annual service contracts used in the day-to-day operation, maintenance and repair of the physical plant.

OPlantS strives to economize wherever possible, including procuring many supply and equipment items through the General Services Administration or off GSA Schedules, procuring in bulk quantities to obtain price reductions, and requiring competitive bids

whenever appropriate. Reductions in the scope of service contracts and the volume of supplies purchased each year are impossible without severely endangering the safety and health of visitors and staff, the condition of the collections, and the operation of Smithsonian buildings.

The addition of \$325,000 will provide approximately half of the base funds felt needed to allow the Office of Plant Services to meet its operations and maintenance obligations without the need for diverting significant resources from other Institutional programs.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Unrestricted General Trust funds are provided by allotments and are used primarily to cover salaries and some support costs of five full-time positions (estimated expenditures of \$189,000 in FY 1984 and \$200,000 in FY 1985) and to provide for the payment of the Trust fund share (40 percent) of the Smithsonian's annual costs for the use of the Federal Telecommunications Network System and for the Trust fund share of space rental costs for administrative units located in L'Enfant Plaza (estimated expenditures of \$896,000 in FY 1984 and \$968,000 in FY 1985). Special Purpose funds are provided primarily from user reimbursement for services rendered to Trust funded units and are used to purchase supplies, services, equipment and landscaping materials.

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1983 Appropriation.....	\$ 2,000,000	} Equivalent in Excess Foreign Currencies
1984 Appropriation.....	\$ 7,040,000	
1985 Estimate.....	\$ 9,000,000	

ABSTRACT - The Smithsonian Foreign Currency Program makes grants to universities, museums and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence.

For FY 1985, the Smithsonian requests \$9,000,000 equivalent in foreign currencies which have been determined by the Treasury Department to be in excess of the normal needs of the United States. This appropriation will be used to continue a program of grants to United States institutions for research in those countries where excess local currencies are available (\$4,000,000); to increase to the level of \$7,250,000 equivalent in Indian rupees the forward-funded reserve in support of future programs of the American Institute of Indian Studies (\$4,000,000); and for the third increment of the United States contribution to the international effort to restore and preserve the ancient city of Moenjodaro in Pakistan (\$1,000,000).

JUSTIFICATION OF EXCESS FOREIGN CURRENCY REQUEST:

I. PROGRAM OF GRANTS FOR RESEARCH (\$4,000,000 equivalent)

The Smithsonian program is a major source of excess foreign currency support for research carried out by United States institutions in the excess currency countries; currently Burma, Guinea, India and Pakistan are so designated. The Smithsonian program is distinguished from other Special Foreign Currency Programs in that the full responsibility for the design, execution and publication of research results rests with a scholar working within the program of a United States institution. Smithsonian foreign currency grants strengthen the research and training activities of collaborating institutions abroad since most projects directly involve host country institutions and scholars. Enduring professional ties, which result from joint efforts and scholarly exchange, help strengthen United States cultural relations with other nations. Also, these ties contribute to the integration of the worldwide advancement of science which serves to narrow the gap between the industrial and the developing nations.

Since the inception of the program in FY 1966, Smithsonian grants have been made to 233 United States institutions in 41 states, Puerto Rico, and the District of Columbia to support more than 825 individual projects. Publications known to have resulted from program grants have totaled more than 1,375 to date.

In FY 1983, grants supported the following projects of special interest:

A geological team in Egypt studied radar images of archeological sites taken from the Space Shuttle Columbia. The images revealed important unknown features several feet below the surface of the desert.

Ancient pollen samples taken at sites in Pakistan are helping to date some of the oldest paleolithic material found to date on the Indian subcontinent.

An architectural survey of the Hindu imperial capitol Vijayanagara is establishing the organizational patterns and principles embodied in one of the greatest medieval urban centers.

Refugees now resident in India are being interviewed to document the final years of Tibetan history from 1933 to 1950.

Further, with emphasis on information exchange through small workshops, symposia and field conferences, the Smithsonian is encouraging international research in specialized areas. In FY 1983, for example, United States scholars received support for participation in exchanges on the subjects of social class structure, Pakistani archeology, elephant management, Hindi language studies, and cosmic ray physics.

The Smithsonian program considers proposals from any qualified American institution for research in fields of traditional Smithsonian competence. The program seeks the advice of experts in the specific area of sciences to be studied in reviewing the proposals and annually convenes advisory councils of senior scholars from across the nation. Following the recommendation in the House-Senate Conference Report 95-1672 dated September 29, 1978, the National Science Foundation reviews the credentials of the members of the advisory councils and certifies their competence. The councils discuss and evaluate the proposals, taking into consideration the experts' opinions, and provide specific advice to the Smithsonian regarding the selection of proposals recommended for support and the priorities among them.

Foreign currency awards to other institutions are executed as normal Federal contracts, with the American grantee institutions providing for full fiscal accountability. The Smithsonian audits each grantee's periodic financial reports and where grantees maintain records abroad, conducts site audits to ensure that appropriate accounting procedures are followed. The awards to Smithsonian employees are executed as normal Federal allotments to the individual bureaus of the Institution for the support of approved research projects. Such funds are expended in accordance with Federal procurement and personnel regulations.

For FY 1985, the Institution requests the sum of \$4,000,000 equivalent in excess currencies to continue this important grant program.

II. RESERVE FOR THE AMERICAN INSTITUTE OF INDIAN STUDIES (\$4,000,000 equivalent)

Since 1967, the Smithsonian has provided annual funding to the American Institute of Indian Studies (AIIS) for fellowships, research, symposia and publications and for administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for more than a decade because of their significant contributions to scholarship and science without regard for national boundaries and their special service to American scholars conducting research.

Overseas research centers which depend heavily on excess currency support for operations and programs are often threatened with closure when their major source of funding is suddenly cut off, as happened in Egypt in 1981. The American Research Center in Egypt now is facing the possibility of closing its doors when its grant terminates in 1985 and many projects which would have continued for many years had to be brought to conclusion after 1981.

In FY 1980, FY 1981 and FY 1984, anticipating the future depletion of the excess Indian rupee, the Smithsonian sought and received appropriations totaling \$3,250,000 for a forward-funded reserve for continuation of the activities of the American

Institute of Indian Studies after the demise of the excess currency program in that country. Estimates of the date have varied but it has now arrived, as OMB Bulletin 84-2 of October 26, 1983, states that it is unlikely that the Indian currency will be declared excess for FY 1986.

It is essential, then, to United States scholarship in India that the AIIS forward-funded reserve receive as much funding as possible in this last year of rupee availability. The OMB has allowed \$4,000,000 in FY 1985. This would bring the reserve up to \$7,250,000. While this may meet the five-year needs of the Institute, a total of \$10,000,000 would be optimum, allowing the Institute to maintain current levels and to absorb additional scholarly needs.

In FY 1985, a sum of \$4,000,000 equivalent in Indian rupees is requested for addition to the forward-funded reserve. The reserve is to be maintained intact, until such time as the depletion of the United States Indian rupee account causes its removal from the excess currency list.

III. INTERNATIONAL EFFORT TO SALVAGE MOENJODARO (\$1,000,000 equivalent)

In 1921, two important discoveries were made in the Indus Valley of India, now Pakistan, when archeologists discovered the remains of the cities of Harappa, near Lahore, and Moenjodaro, about 250 miles north of Karachi. These two cities apparently are the products of the Harappan civilization which flourished over 4,500 years ago, from about 3000 B.C. to 1500 B.C. Moenjodaro, a city of a square mile, is the larger and more impressive of the two sites. From the standpoint of planning, sanitation and social organization, this city anticipated developments which only blossomed several thousand years later.

The excavated ruins at Moenjodaro have been threatened since their discovery by two main causes of destruction: floods of the Indus River and highly saline ground waters have caused the serious deterioration of the excavated remains.

Since the 1960s, the Government of Pakistan has appealed to the international community for assistance in salvaging Moenjodaro by diverting the river, lowering the water table, providing remedial action to stabilize threatened buildings and preventing disintegration of those that have not yet been seriously damaged, and installing appropriate landscaping. UNESCO responded to Pakistan's appeal and, in 1974, agreed to lead an international fund-raising campaign. In the interim, the Government of Pakistan, with the assistance of UNESCO, has conducted a series of technical studies relating to river control, dewatering and other methods conducive to the eventual preservation of the site.

The project, long in the planning stage, is underway with a ground water control scheme now nearing completion and preparations of the river control scheme advancing rapidly. The consolidation and treatment of the remaining structures is continuing and landscaping work has started. Salt-resistant plants will be planted for erosion control and to provide suitable protection from wind-driven sands.

On October 10, 1979, an agreement between UNESCO and the Government of Pakistan for the preservation and development of the monumental site of Moenjodaro was signed. Following this, an Executive Committee of the Campaign was set up to advise the Director-General of UNESCO on all aspects of the project. The Committee has held several meetings during which various aspects of the plans were reviewed.

To date, UNESCO has raised approximately \$3,300,000, mainly from governmental contributions of member states and the Government of Pakistan has made an initial

commitment of \$2,000,000 for the project. The funds raised thus far have been deposited in an international trust fund for Moenjodaro. Considering that the total budget for the project is estimated now at more than \$13,000,000, the Committee is seeking new or additional contributions.

In FY 1982, the Institution transferred to UNESCO the appropriation of \$960,000 equivalent in nonconvertible Pakistani currency as an initial contribution from the United States toward this important project. The amount of \$1,040,000 will be transferred in FY 1984. The Smithsonian is seeking a third increment of funds for this project in FY 1985, a sum of \$1,000,000 equivalent in Pakistani rupees, to increase the United States contribution. One more increment will be sought in FY 1986 to complete the contribution.

Obligations of Funds by Program Area
(dollar equivalents)

	<u>FY 1983</u> <u>Actual</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>
Archaeology and Related Disciplines	\$1,479,000 <u>2/</u>	\$5,748,000 <u>1/2/</u>	\$7,540,000 <u>1/2/</u>
Systematic and Environmental Biology	412,000	876,000	850,000
Astrophysics and Earth Sciences	91,000	85,000	195,000
Museum Programs	187,000	350,000	360,000
Grant Administration <u>3/</u>	110,000	110,000	105,000
Science Information Program <u>4/</u>	<u>62,000</u>	<u>150,000</u>	<u>150,000</u>
Total	<u>\$2,341,000</u>	<u>\$7,319,000</u>	<u>\$9,200,000</u>

1/ Includes obligations for AIIS forward-funded reserve: FY 1984, \$2,000,000; FY 1985, \$4,000,000.

2/ Includes obligations for U.S. contribution for Moenjodaro: FY 1984, \$1,040,000; FY 1985, \$1,000,000.

3/ Includes transfers to the State Department for "Foreign Affairs Administrative Support."

4/ Includes estimates for Science Information Programs for translations.

Obligations of Funds by Country
(dollar equivalents)

	FY 1983 <u>Actual</u>	FY 1984 <u>Estimate</u>	FY 1985 <u>Estimate</u>
Burma	\$ -0-	\$ 15,000	\$ 21,000
Guinea	-0-	-0-	-0-
India	2,050,000	5,845,000 <u>1/2/3/</u>	7,665,000 <u>1/2/3/</u>
Pakistan	<u>291,000</u>	<u>1,459,000</u> <u>4/</u>	<u>1,514,000</u> <u>4/</u>
Total	<u>\$2,341,000</u>	<u>\$7,319,000</u>	<u>\$9,200,000</u>

1/ Includes transfers to the State Department for "Foreign Affairs Administrative Support."

2/ Includes obligations for AIIS forward-funded reserve: FY 1984, \$2,000,000; FY 1985, \$4,000,000.

3/ Includes estimates for Science Information Programs for translations.

4/ Includes obligations for U.S. contribution for Moenjodaro: FY 1984, \$1,040,000; FY 1985, \$1,000,000.

Status of Funds
(dollar equivalents)

	FY 1983 <u>Actual</u>	FY 1984 <u>Estimate</u>	FY 1985 <u>Estimate</u>
Unobligated Balance Start of Year	\$ 136,000	\$ 39,000	\$ 60,000
Appropriation	2,000,000	7,040,000	9,000,000
Recovery of Prior Years' Obligations	245,000	300,000	200,000
Unobligated Balance, End of Year	<u>-39,000</u>	<u>-60,000</u>	<u>-60,000</u>
TOTAL OBLIGATIONS	<u>\$2,342,000</u>	<u>\$7,319,000</u>	<u>\$9,200,000</u>

FACILITIES PLANNING, RENOVATION,
RESTORATION, AND CONSTRUCTION

OVERVIEW OF SMITHSONIAN CONSTRUCTION, AND RESTORATION AND RENOVATION PROGRAMS

Consistent with the Institution's responsibility and commitment to maintaining museum and other buildings and providing for future facility needs, the Smithsonian is embarking upon a carefully planned, integrated improvements program involving restoration, renovation and repair of existing facilities and the planning, design and construction of additional facilities essential to future programmatic needs. Since each of the many projects planned requires considerable study, planning and design before drawings and specifications can be issued for bid solicitation, it is necessary to forecast these projects several years in advance of seeking necessary appropriations. This process greatly assists in the orderly development of facility requirements and a well managed program for implementation of each project. The following overview highlights the most significant aspects of the Construction and Restoration and Renovation programs for FY 1985 through FY 1989.

Quadrangle Construction

Public Law 96-36 authorizing planning for development of the Quadrangle was signed by the President on July 20, 1979. In FY 1982, \$960,000 was appropriated to complete planning and design for a Center for African, Near Eastern, and Asian Cultures within 4.2 acres of land bounded by the Smithsonian Institution Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue. This project, estimated to cost \$75,000,000, is expected to be financed equally between government and private sponsors. An amount of \$36,500,000 was appropriated in FY 1983 to allow the Institution to construct the Quadrangle. Because a very favorable construction contract was awarded by the General Services Administration, the Congress reduced the construction appropriation by \$8,000,000 in FY 1984. Legislative language accompanying this reduction will allow the Institution to justify future funding requests necessary to bring this project to fulfillment.

The Quadrangle building will include exhibition galleries and supporting museum facilities for proper display of unique collections of the National Museum of African Art, as well as for an expansion of collections of Near and Far Eastern art to be known as the Sackler Gallery of Art. In addition, quarters are planned for the Smithsonian Institution Traveling Exhibition Service, expanded public education facilities, as well as the International Center for special exhibitions and symposia. The joining of these activities and programs in one area will enable the Institution to apply, in a coordinated fashion, major resources to benefit millions of visitors who travel to Washington D.C. each year. It will provide, as well, an opportunity for foreign nations to present their most important cultural accomplishments to this same audience.

The Quadrangle site will be occupied above ground by two small entrance pavilions bordering Independence Avenue which will serve as introductory galleries. The two pavilions will allow access to three building levels below grade providing exhibition galleries, libraries, classrooms, and space for the care and study of collections. The galleries will permit the Institution to present a variety of exhibitions drawn from the resources of its own museums, other United States collections, or borrowed from abroad. The International Center will enable the Institution to organize international symposia and exhibitions and will enhance the public's ability to interpret distant cultures of extraordinary richness and importance.

On June 30, 1983, the General Services Administration (GSA) awarded a construction contract for the Quadrangle project to the Blake Construction Company, Washington, D.C., in the amount of \$39,377,000. Following a preconstruction meeting

and submittal of performance bonds, the GSA issued a notice to proceed to Blake effective July 20, 1983. The period of performance required by the contract is 915 days, with a contract completion date of January 20, 1986.

General Post Office Building

Since 1958, when the Institution acquired the Patent Office Building, it has been interested in obtaining the General Post Office Building, which is immediately across F Street and further bounded by 7th, 8th and E Streets. Both buildings are the work of America's first native-born professional architect, Robert Mills of South Carolina, who also designed the Washington Monument and the Treasury Building. The General Post Office (the fifth oldest Federal building in Washington, D.C.) is proposed to be used for the expanding public activities of the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art now housed in the Patent Office Building.

The General Post Office Building offers space for a wide range of public museum activities such as exhibitions, the study of collections, classes and seminars. An auditorium for lectures, films, and other purposes, urgently needed by the programs in the Patent Office Building, can be created in the General Post Office Building. Conversion of the building to public use, including weekend and evening education activities, also would add significantly to the emerging cultural and art corridor along 7th and 8th Streets that has been encouraged by the Pennsylvania Avenue Development Corporation. The firm of E. Verner Johnson and Associates has been selected to develop specific museum programs of use for the building and to assess the positive effect the use of this building would have on the use of space in the Patent Office Building. A final report by this firm is expected in February 1984.

Funding in the amount of \$35 million is estimated to be needed for the planning, design, renovation and repair of the building for public use. Preserving this historic landmark and converting it to public purposes will require a comprehensive restoration and renovation program that must meet the special requirements of museums for fire protection and constant temperature and relative humidity in order to preserve the collections with which they are entrusted, while also providing for the safety and accommodation of visitors. Elements of such a program will include replacing the existing roof; restoring all of the original interior and exterior architectural finishes; replacing the windows with thermopane glazing; modernizing all electrical and plumbing systems; providing new insulation, a vapor barrier, and a heating and air conditioning system with industrial controls; replacing existing florescent lighting with fixtures reminiscent of the period in which the building was constructed; and installing smoke detection and sprinkler systems and with other security equipment. The passage of authorizing legislation is expected early in 1984 to allow a request of \$3.5 million for design and \$31.5 million for construction in the FY 1986 budget to Congress.

Science Facilities Development

The Smithsonian Board of Regents has approved the introduction of legislation for planning and construction authorization for science facility development. Unlike prior year repair and improvement activities, current research objectives include a coordinated effort to improve science facilities commensurate with the Institution's long range scientific expectations. These construction projects are as follows:

1. Smithsonian Environmental Research Center

Following a thorough program review and evaluation, the Institution on July 1, 1983, integrated the research programs of the Radiation Biology Laboratory

and the Chesapeake Bay Center for Environmental Studies. This merger is expected to strengthen present research activities and to afford greater efficiency and economy of administration. The former Radiation Biology Laboratory conducts basic research on the interaction of plants and sunlight and the mechanisms and processes controlled by light. The former Bay Center conducts research on land-water relationships and ecosystems.

The Institution recently exercised an option to renew the GSA lease for the Radiation Biology Laboratory's facilities at Rockville, Maryland, through 1985, and anticipates exercising a final option which would extend this lease through 1990. Past experience also indicates that technically sophisticated laboratory space is acquired by lease only at significant expense, and with less than satisfactory results. Therefore, it is planned to consolidate the newly formed Smithsonian Environmental Research Center at the Bay Center facility near Edgewater, Maryland.

An assessment of need suggests that a modern laboratory building of approximately 60,000 square feet will be required, as well as construction of four scientifically equipped greenhouses and a wet laboratory with fresh and salt water tanks. The existing administrative and education facilities will require modifications, and extensive access and utility improvements are anticipated. The Institution expects to request \$2,400,000 in FY 1986 for planning and design and \$23,100,000 in FY 1987 for construction, of which \$1,500,000 would be for equipping the facilities. Little, if any, increase in operating cost above that which the two separate locations now experience is expected.

2. Air and Space Museum

Because of the size of air and space craft, even early craft that could be partially disassembled, it was considered uneconomical to provide collection storage space in Mall buildings. Therefore, the Air and Space Museum has continued using temporary metal storage buildings at a 100-acre site at Suitland, Maryland, acquired by the Institution for this purpose in the mid-1950s. During these intervening years, the Suitland area has been developed intensely, making transportation of large modern aircraft to the Air and Space facility, now known as the Paul E. Garber Facility, unfeasible.

Staff of the Air and Space Museum for the past four years have evaluated potential locations at or near airports in the Washington region that could accommodate storage and exhibition structures and permit relocation of aircraft from the Garber Facility, as well as receive by air transportation, new objects such as the NASA shuttle Enterprise and the French Concorde. This search resulted in the selection by the Museum of the Federal Reservation at Dulles International Airport, Virginia. Preliminary and informal discussions with the Federal Aviation Administration indicate that sufficient underdeveloped acreage and general interest exists to warrant serious consideration of this location and further study and planning.

The Institution, following approval of conceptual development planning by its Board of Regents, anticipates that further feasibility exploration and preliminary planning will be pursued in the coming year. Beyond this stage of development, the Institution foresees that four aircraft hangar buildings of approximately 100,000 square feet each might be constructed over a ten to fifteen year period. Amounts of \$1,200,000 in FY 1987 and \$12,000,000 in FY 1988 will be requested for design, site preparation, and construction of a first building.

3. Whipple Observatory

Further development of facilities at the Whipple Observatory near Tucson, Arizona, is required to support expanded research activities associated with the Multiple Mirror Telescope. Research activities of the Whipple Observatory are conducted on a 4,744-acre site at the 7,600-foot level of Mount Hopkins which is owned by the U.S. Forest Service and reached by a limited-access secondary road that originates at the Observatory administrative headquarters location in Amado, Arizona.

The Institution has obtained authorizing legislation (P.L. 98-73) to enable the purchase of land immediately adjacent to existing support facilities and is requesting \$150,000 in the FY 1985 budget request. Other site alternatives continue to be explored. The Institution anticipates seeking \$3,000,000 in FY 1986 to construct adequate support facilities and associated improvements for the Observatory.

4. Tropical Research Institute

The Smithsonian Tropical Research Institute (STRI) serves as a center for tropical studies carried out by the United States and international scientific communities, conducts in-house basic research, and is custodian of the largest protected area of tropical forest under direct United States care. To excel in each of these important programs, it is necessary to undertake over the next five years a facilities program whose detailed planning will be incorporated in a Master Plan now being prepared by an architectural/engineering firm.

A terrestrial lab is needed to supply research facilities for approximately 12 staff scientists and approximately 12 pre- or post-doctoral students. In addition to the 24 lab/offices for these scientists, the indoor facilities would include chemistry analytical labs, dark rooms, aquarium room, environmental control laboratory, instrument repair, computer equipment, chemical storage, reference collection storage, and an herbarium. External but connected to the main laboratory would be an insectary, an aviary, a small animal facility (for mammals, reptiles and amphibians), and a plant growing facility.

The Institution expects to request \$6,500,000 in FY 1986 for this laboratory. Additionally, it is estimated that amounts of \$750,000 in FY 1987, \$2,000,000 in FY 1988, and \$3,500,000 in FY 1989 will be requested for construction projects at Naos Island on the Pacific, Barro Colorado Island in the Canal, and at Galeta Point on the Atlantic.

Mall Administrative Support

Service Center Building

The present concept of an in-town Smithsonian Service Center was developed in 1975, when a number of Institution support activities located at various leased buildings in Washington were consolidated at a single leased location at 1111 North Capitol Street, to provide efficient support to museums and other bureaus principally located on the Mall. In selecting the present Service Center location, proximity to the Mall was a key factor inasmuch as the movement of personnel and museum-related objects between the Service Center and the Mall occurs at a relatively high frequency.

Support activities included in the Service Center can be characterized as being of the light industrial type. A major activity is Exhibits Central where museum exhibits are developed and constructed from basic materials such as lumber, plastic,

paper, etc. Exhibits Central provides services in the areas of: drafting, model construction, woodworking, plastics, silk screening, painting, fabrics and welding.

Other major activities include the assembly, processing, packing, crating and shipment of outgoing traveling exhibits for the Smithsonian Institution Traveling Exhibition Service (SITES); the receipt, storage and issue point for general office and museum and building operation and maintenance supplies and equipment; printing and duplicating plant; distribution center for the Smithsonian Institution Press; and limited holding areas for museum objects from several of the museums.

With the development of a Service Center concept, the Institution leased the presently used facility at 1111 North Capitol Street. The current lease for the Service Center expires in the fall of 1991. During the term of the present lease, the building was sold to a development firm. In discussions with principals of the firm, it has been made clear to Institution representatives that the objectives of the current owners include redevelopment of the property to a higher and better use. It is noted that the neighborhood is currently in a transition stage, moving from light industrial use to probably office building or comparable use. Quality office buildings have been constructed on North Capitol Street several blocks south of the 1100 block, with substantial indication that this growth will continue to the north in a relatively short period of time.

Authorization will be sought to design and to construct replacement space for those activities now at 1111 North Capitol Street together with those other central support activities now on the Mall which are expected to outgrow their present space which may be required for museum programs. Presently, this is estimated to require a Service Center of 250,000 gross square feet. The Institution plans to request in FY 1987 \$9,000,000 for site acquisition and design, and in FY 1988, \$18,000,000 for construction.

Office Building

In 1972, the Institution found it necessary to lease office space at L'Enfant Plaza on 10th Street, S.W., about two blocks from the Castle building. Scattered leased spaces were consolidated and additional Mall space was needed for public purposes. Presently, the Institution occupies about 55,000 square feet at L'Enfant Plaza and 12,000 square feet at Capitol Gallery, located about two blocks from the Air and Space Museum, on 6th Street, S.W.

The Institution now is reassessing its use of all Mall and leased space, including the effects on this space resulting from occupancy of the Museum Support Center and anticipated completion of the Quadrangle project. In expectation that some leased space will continue to be required, the Institution needs to consider purchase or construction of office space near the Mall in order to reduce the longer term budget effects of continued rental escalation. In 1972, space at L'Enfant cost about \$8.50 per square foot and now this same space costs \$20 per square foot, and \$22 per square foot at Capitol Gallery. Assuming that a purchase or construction cost could be amortized over a ten to 20 year period at yearly expense not exceeding current annual rental costs, then, these rental funds could eventually be put to other program purposes.

Zoological Park and Conservation Center

The original 1973 Zoo Master Plan included 41 projects at Rock Creek costing an estimated \$118,000,000. Since then, the program has been scaled down to 30 projects and approximately \$75,000,000 at the Zoo in Rock Creek and, in addition, approximately \$10,000,000 of work at the Conservation Center. This savings is due largely to

the acquisition of the Front Royal site in 1975, which permitted a reevaluation of the Rock Creek development plan, eliminating many costly and space-consuming projects necessary for breeding and research. The revised plan recognizes that many animals can be provided for at Front Royal at less expense than at Rock Creek. Projects that can be conducted more effectively at Front Royal will continue to be sited there and include nearly all major hoofstock breeding requirements, back-up housing for small primates and numbers of other small mammals, bird incubation and breeder functions, as well as for backup holding facilities.

Restoration and Renovation of Buildings

Projection of needs for the Smithsonian's Restoration and Renovation of Buildings program requirements indicates that substantial increases will be necessary in order for the Institution to properly maintain its facilities. While this growth is partially attributable to the effects of inflationary increases on costs for construction related materials and services, the current request also indicates the Institution's commitment to strengthen its restoration and renovation programs essential to allow proper maintenance of buildings and facilities.

Substantial work is required to keep Smithsonian facilities, many of which exceed 100 years of age, in good repair and efficient operating condition. This is important for several reasons, perhaps one of the most significant being that the majority of the Institution's museums are included on the National Register of Historic Places, which imposes a special responsibility under the provisions of the National Historic Preservation Act to ensure that they are maintained in a manner consistent with their architectural character. Additionally, the proper care and protection of the National Collections also are crucial reasons to maintain adequately the Institution's facilities. The Smithsonian's legal responsibility to serve as the official repository of the National Collections (20 U.S.C. 41 et seq.) provides that the Institution not only accept and store art objects, natural specimens and artifacts, but also that these items must be conserved properly. The collections can be damaged irreparably by inadequate environmental control. This will be prevented through continuing efforts to upgrade heating, ventilating and air conditioning systems as well as maintaining and improving electrical, mechanical and plumbing systems, and roofs and facades in Smithsonian facilities.

Requirements for the safety and security of visitors and staff also demand that facilities be in proper repair. Fire detection and suppression equipment must be upgraded and modernized in order to provide the level of protection consistent with today's technology. Sprinklers, smoke detectors, fire doors and other improvements are needed and exits must be improved in older buildings to meet current code requirements.

Greater awareness and attention to the needs of disabled persons have resulted in the definition of requirements for the Institution's facilities in order to make them more accessible to all visitors and staff. These requirements are met also in new exhibits and construction projects.

Program objectives for research, exhibition and conservation at the Smithsonian facilities, particularly at outlying facilities, present mandatory requirements for repair, improvement and renovation work. These responsibilities must be met to provide for efficient operation and appropriate support of the programs of all Smithsonian facilities. Strengthened preventive maintenance programs, together with a carefully developed and executed facilities improvements plan, will provide buildings which better support the wide range of research, exhibition, collections management, education and other public service activities carried out by the Smithsonian.

PROJECTION OF FEDERAL CONSTRUCTION AND RESTORATION AND RENOVATION PROGRAM

(\$000s)

<u>Category</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>
Construction /1	--	--	51,900	34,050	33,200	15,300
Construction and Improvements, National Zoological Park	3,500	3,500	9,670	7,650	14,270	3,450
Restoration and Renovation of Buildings	<u>9,000</u>	<u>13,750</u>	<u>22,825</u>	<u>24,155</u>	<u>26,355</u>	<u>25,645</u>
TOTAL	12,500	17,250	84,395	65,855	73,825	44,395

/1 Includes amounts of \$1,200,000 in FY 1988 and \$10,800,000 in FY 1989 for the proposed Administration Office Building which might be funded from private sources.

Detail of projects for the above categories (including Trust funded projects proposed) follow.

(\$000s)

SMITHSONIAN INSTITUTION
FEDERAL AND TRUST FUNDED CONSTRUCTION PROJECTIONS
FY 1984 - FY 1989

CONSTRUCTION	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
Freer Gallery /1			5,000			
General Post Office /2			35,000			
Science Facilities Development /3				23,100		
Smithsonian Environmental Research Center			2,400	1,200	12,000	
NASM/Dulles			3,000			
Whipple Observatory						
Smithsonian Tropical Research Institute			6,500	750	2,000	3,500
Administrative Service Center /4				9,000	18,000	1,000
Suitland Development /5						
Administration Office Building /6	12,000				1,200	10,800
NASM Restaurant /7						
Cooper Hewitt /8						
TOTAL	12,000	---	51,900	34,050	33,200	15,300

/1 This project may be funded from several sources. It includes interior and exterior improvements and modifications required to modernize operations of the museum and to achieve maximum benefit at the Freer Gallery from facility resources available in the Quadrangle Building.

/2 It is anticipated that a planning and construction authorization bill could be obtained in the current session of Congress.

/3 This plan envisions submitting to Congress a Science facility planning and construction authorization bill, to include base camp construction at Amado, a major laboratory building at the Tivoli site, and improvements at other STRI facilities in Panama, relocation of the RBL research activities to the Bay Center, and development of NASM facilities at Dulles Airport to replace its buildings at Suitland. Total estimated planning and construction cost of this package for FY 1986-FY 1989 about \$54.5 million.

/4 A facility to replace the leased North Capitol Street center.

/5 These projects are anticipated as future increments of museum support facilities at Suitland for History and Art and Libraries, on the same order as the present Museum Support Center building.

/6 This project anticipates purchase or construction of an office building near the Mall as a replacement for current leased office space.

/7 Concept is to establish at the Museum convenient public facilities and quality food service. Construction of an addition to the Museum at the east terrace is expected to be financed by corporate/concessionaire funding.

/8 The Institution's Board of Regents has under consideration a proposed facility expansion project, presently estimated at about \$15 million, to be funded from various sources.

(\$000's)

NATIONAL ZOOLOGICAL PARK
Construction Program
1974-1989

<u>Activity</u>	<u>1974-83</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>Repro-grammings</u>	<u>TOTAL</u>
<u>I. Master Plan</u>									
Lion-Tiger Facility	3,000	/1							3,000
Elephant/Bird House	3,130							+26	3,156
Education-Administration Building	2,500							-157	2,343
General Services Facility	7,000							+834	7,834
Lower Rock Creek Valley	3,000							-1	2,999
Beaver Valley Area	6,410							-431	5,979
Central Area	10,390							-264	10,126
Waterfowl Pond and Small Cats	520							-15	505
Aquatic Habitats	500				700	12,000			13,200
Health & Research Facility (incl. Holt House Renovations)			4,300						4,300
Master Graphics	200							+1	201
Entranceway & Olmsted Walk	350		2,000	1,000	1,500				4,850
Goats & Sheep Exhibits				100	1,000	60	600		660
Savannah & Plains Animals									1,100
Subtotals	37,000	-	2,000	5,400	3,200	12,060	600	-7	60,253
<u>II. Renovations, Repairs & Improvements</u>									
Rock Creek	5,180	1,000	1,050	1,250	1,400	1,500	1,500 /2	+7	12,887
Totals, Rock Creek	42,180	1,000	3,050	6,650	4,600	13,560	2,100	-	73,140
<u>III. Conservation and Research Center Development Plan</u>									
Hoofed Stock Barn	650								650
Small Animal Facility	980	700							1,680
Veterinary Hospital		1,400							1,400
Maintenance Facility				100	750				850
Primate Facility				170	1,700				1,870
Large Hoofed Stock Facility				2,300					2,300
Road Improvements/Extensions						60	600		660
Administrative Facility							100		100
Subtotals	1,630	2,100	-	2,570	2,450	60	700	-	9,510

(\$000' s)

NATIONAL ZOOLOGICAL PARK
Construction Program
1974-1989
(continued)

<u>Activity</u>	<u>1974-83</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>Repro- grammings</u>	<u>TOTAL</u>
IV. <u>Renovation, Repairs & Improvements</u>									
Conservation & Research Center	<u>4,404</u>	<u>400</u>	<u>450</u>	<u>450</u>	<u>600</u>	<u>650</u>	<u>650</u> /2	<u> </u>	<u>7,604</u>
Totals, Conservation & Research Center	<u>6,034</u> /3	<u>2,500</u>	<u>450</u>	<u>3,020</u>	<u>3,050</u>	<u>710</u>	<u>1,350</u>	<u>-</u>	<u>17,114</u>
GRAND TOTALS	<u>48,214</u>	<u>3,500</u>	<u>3,500</u>	<u>9,670</u>	<u>7,650</u>	<u>14,270</u>	<u>3,450</u>	<u>-</u>	<u>90,254</u>

/1 Excludes \$275,000 for planning appropriated in FY 1973.

/2 In subsequent years, major repairs and maintenance are expected to require \$1,500,000 at Rock Creek and \$650,000 at the Conservation and Research Center annually.

/3 Excludes \$125,000 appropriated in FY 1975 under Restoration and Renovation of Buildings Account.

RESTORATION AND RENOVATION OF BUILDINGS
 PLANNED PROGRAM
 FY 1984 - FY 1989

	FISCAL YEARS					Total FY 1985-89
	1984	1985	1986	1987	1988	
(Dollars in thousands)						
<u>GENERAL REPAIRS AND IMPROVEMENTS</u>	<u>345</u>	<u>545</u>	<u>1,795</u>	<u>1,410</u>	<u>850</u>	<u>6,800</u>
<u>FACADE, ROOF AND TERRACE REPAIRS</u>						
American Art/Portrait Gallery (AA/PG)		150	180			330
-repair stone facade						
Arts and Industries Building (A&I)	2,500	2,500	1,500			4,000
-roof and exterior renovation						
Freer Gallery of Art			265			265
-skylight repairs						
Hirshhorn Museum (HMSG) - resurface plaza					3,000	3,000
Museum of American History (MAH)				570		245
-north and south entrance door replacement						570
-window replacement						925
-remove ramp and canopy/waterproof terrace	500	710				710
-roof replacement						175
-planning/design fountain renovation		250	300			550
Museum of Natural History/Museum of Man (MNH/MOM)			200	1,000	2,000	3,200
-caulk and point facade						
-roof replacement						
National Air and Space Museum (NASM)				200	4,500	4,700
-plaza replacement						300
-roof repairs			100	200	200	700
-facade repairs						500
Renwick Gallery - facade renovation	1,800	500				90
Smithsonian Environmental Research Center (SERC)						50
-roof repairs		90				200
Smithsonian Institution Building						160
-replacement of stones in facade		50				
Anacostia Neighborhood Museum		200				
-roof replacement			60		100	
All other projects in this category						
Subtotal, Facade, roof and terrace repairs	4,800	4,450	2,605	1,970	6,700	20,670

RESTORATION AND RENOVATION OF BUILDINGS
 PLANNED PROGRAM
 FY 1984 - FY 1989

(Dollars in thousands)

	<u>FISCAL YEARS</u>						<u>Total</u> FY 1985-89
	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	
<u>FIRE DETECTION AND SUPPRESSION SYSTEMS</u>							
A&I - sprinklers and smoke detection		75	100	75	75	75	400
AA/PG - sprinkler systems		180	120				300
HMSG - sprinkler systems				105			105
MAH - fire protection master plan	350	200	700	500	500	500	2,400
- upgrade public address system		100					100
MNH/MOM - fire protection master plan	350	500	500	500	400	400	2,300
NASM - fire protection master plan			125	100	100	100	425
Smithsonian Institution Building - fire detection and suppression system	150	150	150	150	150	150	750
Tropical Research Institute (STRI)							
- BCI fire protection	100						
Suitland Facility - fire protection collection storage buildings		160	200	250			610
All other projects in this category	135	100		150		125	375
Subtotal, Fire detection and suppression systems	1,085	1,465	1,895	1,830	1,225	1,350	7,765
<u>ACCESS FOR THE DISABLED, SAFETY AND SECURITY AND CORRECTION OF HAZARDOUS CONDITIONS</u>							
Access for the disabled - various buildings			615	70	50	115	850
MNH/MOM - north and south entrance modifications		200					200
- replace tile floors in west court		85					85
- new interior handrails				150			150
NASM - emergency telephone and lighting system	185		260				260
Asbestos removal/containment	300	400	500	500	500	500	2,400
Mall security lighting			200	200	200		600
Proprietary security system	300	400	400	400	400	400	2,000
Suitland Facility - Bldg. #10 addition, chemical cleaning						200	200
Emergency power study			150	400			550
All other projects in this category		130		155	50	380	715
Subtotal, Access, safety and security	785	1,215	2,125	1,875	1,200	1,595	8,010

RESTORATION AND RENOVATION OF BUILDINGS
 PLANNED PROGRAM
 FY 1984 - FY 1989

	FISCAL YEARS						Total FY 1985-89
	1984	1985	1986	1987	1988	1989	
<u>UTILITY SYSTEMS REPAIRS AND IMPROVEMENTS</u>							
A&I - HVAC renovation/energy conservation /1			2,100	2,300	2,500		6,900
- plumbing repairs		75					75
- tunnel renovation		150					150
AA/PG - HVAC renovation	800				1,200	4,900	6,100
Hirshhorn - energy study and improvements	100		600	400			1,000
MAH - HVAC renovation/energy conservation	250	1,800	2,000	1,000	700		5,500
MNH/MOM - HVAC renovation/energy conservation			2,000	8,000	8,000		26,000
- tunnel renovation			50	50	50		200
NASM - energy conservation study and improvements; HVAC repairs		250	1,000	300			1,550
- replace reheat coils		50	50	150			250
Renwick Gallery - energy study/implementation			50	250			300
Smithsonian Institution Building							
- electrical renovation		60	50	50	50	50	260
- utility system study/implementation			40	100			140
SERC - utility system improvements			30	30	30	30	120
STRI - upgrading of utility systems			75	50		150	275
Cooper-Hewitt - HVAC/electrical/plumbing repairs		300	900	835			2,035
Whipple Observatory - communication network		100					100
All other projects in this category	90					285	285
Subtotal, Utility systems repairs and improvements	1,240	2,785	8,945	13,515	12,530	13,465	51,240

/1 Heating, ventilating and air conditioning (HVAC)

RESTORATION AND RENOVATION OF BUILDINGS
 PLANNED PROGRAM
 FY 1984 - FY 1989

	FISCAL YEARS					Total FY 1985-89
	1984	1985	1986	1987	1988	
<u>OTHER PROJECTS</u>						
AA/PG - building renovations			500	2,000		2,500
A&I - space improvements		500	500	500	500	2,000
Anacostia Neighborhood Museum						
- construct lab expansion	450	400				400
- master plan				100	250	350
Cooper-Hewitt - attic space renovation			2,000	25	250	2,750
Freer Gallery of Art - space conversion			100	125		225
Hirshhorn - master plan			350			350
MAH - Joseph Henry Papers relocation		125				125
- relocate security office				40		40
Renwick Gallery - space study						
SERC						
- calf barn modifications		200				200
- master plan	130	185	300			485
SI Libraries modifications (MNH/MOM)	165	230	170	215		615
Smithsonian Institution Building - master plan			40	100	100	340
STRI - master planning, upgrading and additions		1,015	100			1,115
NASM - Dulles master plan		135	300			435
Suitland Facility						
- MAH buildings		500	500	750		1,930
- collections management and storage building (new)					160	160
- master plan		200	100			300
Whipple Observatory						
- MMT support building and aluminizing shop /2		260				260
- design of Admin. building		40				40
Advanced Planning and Design		200	300	350	400	1,650
Contingency Space Modifications			500	500	500	2,000
Day Care Center				450		450
Subtotal, Other projects	745	3,290	5,460	3,555	3,850	2,090
GRAND TOTAL - Restoration and Renovation of Buildings	9,000	13,750	22,825	24,155	26,355	25,645
/2 Multiple Mirror Telescope (MMT)						112,730

CONSTRUCTION AND IMPROVEMENTS
NATIONAL ZOOLOGICAL PARK

1983 Appropriation\$1,550,000
1984 Appropriation\$3,500,000
1985 Estimate\$3,500,000

This appropriation is for use at the National Zoological Park for repairs, alterations and improvements to existing facilities including exhibits; to prepare plans and specifications for construction; and to perform renovations, restorations and new construction for implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973. The Zoo's facilities include 168 acres in the Rock Creek Valley of Washington, D. C., and a 3,150-acre Conservation and Research Center located near Front Royal, Virginia. Construction and improvements are accomplished primarily by contract except in instances when suitable contractors cannot be located or their estimates are above acceptable cost levels in relation to the proposed work. In such cases, accomplishment of the work by other means, such as the purchase of supplies, materials and equipment and/or the use of current staff or temporary labor, is the most economical alternative. Furthermore, occasionally it is necessary to fund other related expenses from this account, particularly those associated with the displacement of animals as a result of the construction program or major grounds maintenance in repair of storm damage.

Status of the Construction Program - The National Zoological Park was established in 1890 under the Board of Regents of the Smithsonian Institution, which was authorized to "administer and improve" the Zoo for "the advancement of science and instruction and recreation of the public" (20 U.S.C. 81). The Zoo administers two permanent facilities. Exhibition and educational functions have been centered since 1890 on 168 acres in Rock Creek Valley of Washington, D.C. Complementary animal conservation and breeding functions have been conducted since 1975 on a 3,150-acre site near Front Royal, Virginia.

The National Zoo's Rock Creek facilities have been undergoing major renovations and improvements since FY 1974 through implementation of the Master Plan. With the transfer of selected and critical animal breeding functions to Front Royal, the elimination of costly projects and the scaling down of others, the total Rock Creek Master Plan program has been reduced from an original plan of 41 major projects with a cost estimate of \$118,000,000 to 30 projects and a current estimate of \$75,500,000. The Zoo is more than halfway through its construction program, a plan which will place the Park among the world's finest zoos. The total of \$37,000,000 appropriated to date has been spent on 25 new exhibits and support facilities. With funds appropriated in FY 1980, the interior renovation of the Small Mammal Building was completed and reopened in the spring of 1983. The utility systems were replaced and the cages were removed and replaced with modern glass fronted cages and exhibits, allowing the visitors to view the mammals in more attractive and healthier settings. The Monkey Island Exhibit, constructed with funds appropriated in FY 1981, also opened in April 1983. This exhibit houses a colony of Barbary Macaques. It features a 25-foot rock mountain and a waterfall that flows into a wide surrounding moat. The Monkey Island Exhibit is the final major facility to be constructed in the Central Area Complex.

For FY 1985, an amount of \$3,500,000 is requested: to support one Master Plan project at Rock Creek--Phase I construction for renovation of the Rock Creek entrance and Olmsted Walk to the Small Mammal Building including a new animal facility to exhibit Gibbons; and to continue the renovation, repairs and improvements at Rock Creek (\$1,050,000) and at Front Royal (\$450,000).

Renovation of Olmsted Walk - Phase I (\$2,000,000) - An amount of \$2,000,000 is requested for the renovation and improvement of the section of Olmsted Walk from the Rock Creek entry up to the Small Mammal Building, the first phase of a three phase construction program which was designed using \$350,000 appropriated in FY 1983. Phase I will create an identifiable pedestrian entrance at the Rock Creek side of the Zoo which will allow visitors a proper orientation point at the beginning of their visits. A new Gibbon facility, expanded waterfowl exhibit, enlarged lesser panda display and modified tortoise yard will be included in the total renovation. In addition, the main walkway will be modified from its existing course to loop around in front of the Reptile and Monkey Buildings by constructing a winding walkway more in line with the spirit of the original Olmsted design. New overlooks will be created for visitors to enjoy pleasant visits of Rock Creek and Beaver Valley. Proper surfacing materials, adequate drainage, new landscaping, including more shade trees, additional benches and drinking fountains, and improved graphics will be used. These efforts will assist in unifying the exhibits and grounds, providing a pleasant and educational experience at the National Zoo.

Renovation, Repairs and Improvements: Rock Creek (\$1,050,000) - An amount of \$1,050,000 is requested to continue the program of renovation, repairs and preventive maintenance of existing facilities at Rock Creek where there are over 60 facilities of varying ages and 168 acres of land containing over 18 miles of heavily used paths and roadways. The pedestrian paths and vehicle roadways require regular maintenance in order to prevent future, more costly repairs and reconstruction. Renovation, repairs and improvements funds also are used to complete necessary repairs to mechanical, electrical, plumbing, and support systems; animal support and housing; and to pay for temporary relocation of animals during the time when repairs are being performed.

The following renovation and improvement projects are planned for FY 1985:

Renovation of hoofed stock areas - (\$300,000)

These exhibits, completed between 1964 (deer area) and 1966 (hardy and delicate hoofed stock area), over the years have become deteriorated by animal activities and climatic conditions. As a result, repairs are necessary to roofs, gutters, adjacent grounds (erosion control) and utility support systems of the various structures. Funds requested in FY 1985 for essential repair work, together with periodic maintenance, will keep these areas in a proper condition for the foreseeable future.

Replace Seal/Polar Bear filter systems - (\$300,000)

Since the construction of these two exhibits, intensive use has been made of the filtration systems to maintain correct water quality conditions. This intensive usage has resulted in a significant degradation of the system, and present potential health risks to the animals under the Zoo's care. It therefore is necessary to replace these systems with state-of-the-art equipment which has proven to have a substantially longer life cycle than the present system.

Replace one main electrical feeder line - (\$250,000)

This project will result in the replacement of one of the two main electrical feeder lines at the Zoo. This line was constructed in 1974 and supplies electrical current to all the facilities at the Zoo. This feeder line has been identified for replacement by the utility company (PEPCO) due to water in the cable. Deterioration of the plastic insulation allows water to penetrate the insulation causing the line to ground out leaving the remaining feeder to carry the Zoo's electrical load. To prevent this situation in the future this replacement will use

three conductor, 15KV, paper insulated, lead covered, PVC jacketed, copper conductor, shielded cable. This type of cable is impervious to water.

To support general repairs and improvements - (\$200,000)

Funds will be used to support emergency repairs that cannot be planned in advance. Projects may include repairs required due to storm damage, erosion control, renovation of animal exhibits and public spaces, and minor structural repairs.

Renovation, Repairs and Improvements: Front Royal (\$450,000) - An amount of \$450,000 is requested to continue the program of renovation and repair of existing facilities at the Conservation and Research Center at Front Royal, Virginia. The Conservation and Research Center includes 89 facilities of various types containing approximately 236,000 square feet of space, two and one-half miles of paved roads, 20 miles of jeep trails, and 30 miles of fences, all of which must be maintained. Funds also will be used for upgrading the Center's utility systems. With funds appropriated in FY 1984, construction has started to complete the Small Animal Facility (\$700,000). Construction will begin for the Veterinary Hospital (\$1,400,000) in March 1984.

RESTORATION AND RENOVATION OF BUILDINGS

1983 Appropriation.....	\$8,450,000
1984 Appropriation.....	\$9,000,000
1985 Estimate.....	\$13,750,000

The Restoration and Renovation of Buildings (R&R) account is used to finance repairs, alterations and improvements to Smithsonian facilities. (The repairs and renovations at the National Zoological Park are presented separately in this budget submission.)

Smithsonian facilities are comprised of well over 4 million square feet of building space located in 14 museum and gallery buildings (including the Quadrangle, now under construction) in Washington, D.C. and New York City, housing research and collections management activities and a wide range of exhibitions in the fields of science, history, technology and art. In addition, the Institution operates and maintains preservation, storage, aircraft and spacecraft display facilities and the Museum Support Center at Suitland, Maryland; centers for biological research, conservation and education in Panama and on the Chesapeake Bay near Annapolis, Maryland; a center for astrophysics in Cambridge, Massachusetts; and the Whipple Observatory on Mt. Hopkins in Arizona. These facilities range in age from new to well over 100 years old.

The Smithsonian's request for \$13,750,000 in FY 1985, coupled with ongoing planning of major initiatives in subsequent years, illustrates the Institution's commitment toward strengthening the restoration and renovation programs to better the condition of existing facilities and to a thorough and creative process of planning for and meeting future facilities requirements. Consequently, although funds are sought in this budget to continue a wide range of essential repair, alteration and improvement projects, major emphasis will be placed in this and subsequent years on restoring and renovating facades, roofs and terraces; improving heating, ventilating and air conditioning systems at facilities on and off the Mall; completion of design and installation of fire detection and suppression systems; continuation of work consistent with master plans developed for off-Mall facilities; and the planning, design, renovation, and construction of facilities to meet present and future collections storage, exhibition and other programmatic needs of the Institution.

The Institution's Five-Year Prospectus identifies specific categories of work which are estimated to cost approximately \$112.7 million between FY 1985 and FY 1989 (in 1983 dollars). The FY 1985 request of \$13,750,000 represents an increase of \$4,750,000 over the FY 1984 R&R appropriation and emphasizes the Institution's commitment to establish the necessary level of annual funding for this account in consideration of the size, diversity, age, condition and character of the Smithsonian facilities. The justification for this year's budget request follows:

1. General repairs and improvements	\$ 545,000
2. Facade, roof and terrace repairs	4,450,000
3. Fire detection and suppression systems	1,465,000
4. Access for the disabled, safety and security and correction of hazardous conditions	1,215,000
5. Utility systems repairs and improvements	2,785,000
6. Other projects	<u>3,290,000</u>
Total	\$13,750,000

GENERAL REPAIRS AND IMPROVEMENTS (\$545,000): Funds requested in this category support a wide variety of projects that do not lend themselves to discrete categorizations; they also support minor unscheduled, but essential, repairs that cannot be anticipated specifically. Examples of projects include unforeseeable repairs or replacements of building systems or components which fail unexpectedly; modifications to create additional or more effective space for program activities; renovations of exhibition and other public spaces; and repairs to facility support systems. For FY 1985, an amount of \$545,000 is requested, of which \$100,000 is designated primarily for emergency repairs, and \$140,000 is sought for minor repairs at off-Mall facilities such as plumbing, electrical, lighting, and floor and wall repairs. A further sum of \$125,000 is needed for the construction of a cold room at the American History Building which will provide a proper temperature and humidity environment for costume storage; this project was designed with \$25,000 appropriated in FY 1982. An additional \$180,000 is requested for two space improvement projects. For the Archives of American Art, located in the American Art/Portrait Gallery Building, \$100,000 is sought for the design and construction of an additional storage area. An 840 square foot area will be converted to a storage room, plumbing and electrical services, floor and walls, fire protection, and communication and heating, ventilating and air conditioning systems will be installed. For the Natural History Building, an amount of \$80,000 is needed for demolition work in Hall 16 (Whale Hall) in preparation for installation of an Introductory Hall for biological sciences and for rehabilitation of Hall 16's skylight. The demolition work will consist of removing exhibit cases, walls, a balcony and three sets of stairs and opening three bays for future access to adjacent halls.

FACADE, ROOF AND TERRACE REPAIRS (\$4,450,000): Maintaining the integrity of the exteriors of all Smithsonian buildings is critical to prevent major structural damage and deterioration due to age and weathering and to ensure a safe environment for visitors, staff and collections. Energy conservation also demands watertight and weather tight exteriors. Work in this category includes a variety of major projects that must be accomplished periodically according to the life cycles of the materials used. For example, roof replacements are needed about every 20 years; facade joints must be recaulked and repointed about every ten years; and window frames and other exterior trim should be repainted every five years. Several Smithsonian buildings require large-scale renovation, and work is under way to assure that in the future adequate protection of the exteriors of these buildings can be provided through a preventive maintenance and repair program.

Examples of projects that have been completed recently include the designs of the American History Building roof replacement and the Air and Space Building facade repairs; cleaning of the Hirshhorn Building's facade; roof repairs at various buildings at the Suitland, Maryland facility; and the American Art/Portrait Gallery Building facade study. Projects now in progress include facade renovations at the Arts and Industries and Renwick Gallery Buildings.

Excellent progress now is being made in the renovation of the facade of the 120 year old Renwick Gallery Building. The Institution has proceeded carefully on this renovation project in order to assure that the eventual repairs will provide a permanent solution to the problem while maintaining sensitivity to the building's status as a National Historic Landmark. An amount of \$3.65 million has been appropriated through FY 1983 and the sum of \$1.8 million appropriated in FY 1984 will be used in the last construction phase which consists of precasting in concrete the building parts that are to be replaced, removing the deteriorated stone facade, replacing windows and installing the precast concrete building parts. An additional amount of \$500,000 is requested in FY 1985 to complete this project. These monies will allow for an improved concrete curing process recommended by our consultants and for construction contingency funds considered appropriate for this type of project. Restoration is scheduled for completion in late 1985.

An amount of \$2.5 million is requested in FY 1985 to continue the multiyear renovation of the roof and exterior of the historic Arts and Industries Building in order to assure watertightness, energy efficiency and further restoration of original architectural features. Funds of approximately \$1.25 million were appropriated in FY 1977 and FY 1978 for the first phase of exterior renovation work. These were applied toward replacing the roofs of the courts, four halls and rotunda; repairing rotunda and hall windows; replacing some gutters and downspouts; selected repainting in the most deteriorated areas; and other related repairs. With the \$225,000 appropriated in FY 1980, the Institution contracted for professional architectural/engineering services to provide the necessary analysis, documentation, cost estimates, detailed drawings and specifications for the remaining work. The final design effort has been completed. Funds of \$6.43 million appropriated since FY 1981 are being used to continue the exterior restoration on a quadrant-by-quadrant basis. Funds appropriated in FY 1982 and in FY 1983 were used to restore the northwest quadrant, the west facade, and the southeast and northeast pavilions. The sum of \$2.5 million, appropriated in FY 1984, is being used to restore the southeast quadrant and east towers. An amount of \$2.5 million is requested in FY 1985 to restore the northeast quadrant and north entry. Restoration work includes the removal and replacement of existing (range, pavilion and tower) roofing, flashing and underlayment; removal of abandoned or nonoriginal elements, such as skylights, roof vents, exhaust ducts and mechanical equipment; and the repair, relocation or replacement of the roof drainage and guttering systems. Other major aspects of the project include replacement and improvements to window components (frames, sashes, glazing, painting, weather stripping and hardware) and the incorporation of an electronic security system; the provision of fire exit windows; reconstruction, cleaning and repointing of exterior masonry; the removal of nonoriginal equipment located on the facade of the building, such as window air conditioning units, exhaust fans and steam pipes; and the restoration of some of the building's original elements, such as lighting standards at the entrances, cast iron gates and ornamental metal. The total project cost is estimated to be \$11.9 million; the balance of \$1.5 million is expected to be sought in FY 1986 to complete the project. Costs of relocating activities housed in the Arts and Industries Building necessitated by ongoing roof and exterior repairs are being met in FY 1983 and FY 1984 through reprogramming of funds within the Salaries and Expenses appropriation account. Restoration is scheduled for completion in late 1986.

To complete the roof repairs at the American History Building, an amount of \$710,000 is requested in FY 1985 for the replacement of the fourth floor roof and terrace. Leakage resulting from prolonged periods of rain has been observed and poor drainage is a problem as well. With funds of \$500,000 appropriated in FY 1984, replacement of the fifth floor roof and penthouse will begin in the spring of 1984.

An amount of \$250,000 is sought in FY 1985 to caulk and repoint the Natural History Building's facade. The main building's facade will be repointed and the entire building will be caulked including all the joints at the perimeter of windows and doors, construction and expansion joints and at other joints required to be watertight. An additional amount of \$300,000 is expected to be sought in FY 1986 to complete this project.

The marble facade at the American Art/Portrait Gallery Building is deteriorating. With funds of \$10,000 appropriated in FY 1982, a study was conducted to determine the cause and recommend a program to arrest the deterioration. A test was applied to a marble area and monitored for one year. Based on the test results, an amount of \$150,000 is needed in FY 1985 to initiate the first phase of this work and an amount of \$180,000 is expected to be sought in FY 1986 to complete this restoration project.

For the Anacostia Neighborhood Museum, an amount of \$200,000 is requested in FY 1985 to replace the roof on the Exhibits Laboratory at Fort Stanton Park. Over the past several years the Exhibits Laboratory Building has had serious roof leak problems, and despite many attempts at repair, the roof continues to leak. To realize a cost savings it is planned that the roof replacement be accomplished in conjunction with the planned building expansion.

An amount of \$140,000 is requested in FY 1985 for two additional projects. For the Smithsonian Environmental Research Center, an amount of \$90,000 is needed to replace the roofs on the Old Dominion Building and Laboratory Wing; and for the Smithsonian Institution Building, \$50,000 is sought to conduct a study and to replace several deteriorated and damaged areas of the facade.

FIRE DETECTION AND SUPPRESSION SYSTEMS (\$1,465,000): The Institution is continuing to upgrade fire protection systems in all buildings in order to provide a level of safety consistent with today's standards and technology. Work in this category includes the installation of heat and smoke detection systems; sprinkler and chemical suppression systems; fire doors and walls; and the improvement of exit capability, particularly in older buildings. Improved systems are installed as exhibitions are changed.

The Natural History and American History Buildings represent the largest areas with the least protection, and efforts are being made to correct these major safety deficiencies. A fire protection master plan for the Natural History Building was developed in FY 1979, and steady progress has been made since then in carrying out the plan.

With funds appropriated in FY 1979 through FY 1983 (\$1,725,000), construction has been completed on the sprinkler and smoke detection systems for the Natural History Building's west wing; the master fire control panel; and the installation of water supply risers, alarm conduit and wiring required for the east wing. Construction has begun on the installation of the east wing sprinkler and smoke detection systems; sprinklers and smoke detectors in the ground floor and part of the third floor in the main building; and detectors in the west court. Funds appropriated in FY 1984 (\$350,000) are being used to install sprinkler systems in the third floor and Baird Auditorium of the original building. An amount of \$500,000 is requested in FY 1985 to provide emergency public exits from the original building to the east and west wings; to provide fire separation zones between the original building and the east and west wings, and between the original building and the three-story West Court addition; to improve fire protection for woodworking and flammable storage rooms; and to provide safe flammable liquid storage areas in the east and west wings. It is expected that an amount of \$1.8 million will be required through FY 1989 to continue the fire protection master plan work in the Natural History Building.

The fire protection master plan for the American History Building outlines phased improvements similar to those under way or planned for the Natural History Building, including upgrading and/or adding sprinkler and detection systems; upgrading the existing emergency power supply and distribution system; upgrading the fire pumps; installing a new fire alarm system; and undertaking architectural modifications to improve the efficiency of fire zones and exit capabilities. With funds of \$915,000 appropriated between FY 1980 and FY 1983, the fire protection master plan was completed; fire door separations were designed for the first floor; a new ten-inch water main from the street to the building and sprinkler risers throughout the building were designed and are being installed; electrical trunk lines for smoke detection systems and sprinkler annunciation alarms were designed and are being installed. Funds appropriated in FY 1984 (\$350,000) are being used to provide additional automatic sprinkler and smoke detection systems throughout two-thirds of the

basement level. For FY 1985, an amount of \$200,000 is needed to continue installation of sprinklers and smoke detection systems in the basement and to begin installation of fire protection systems on the fourth floor. It is expected that an amount of \$2.2 million will be required through FY 1989 to continue the fire protection work in the American History Building.

An amount of \$100,000 also is requested in FY 1985 to upgrade the public address system at the American History Building as a part of the fire protection master plan. The existing public address system will be improved by installing speakers throughout the building to provide communication between the central public control console in the Security Office and each fire safety zone. Individual evacuation control will be extended to each fire zone.

For the American Art/Portrait Gallery Building an amount of \$180,000 is sought in FY 1985 to upgrade emergency public exits from the building; to install horizontal and vertical fire zone separations; to provide emergency lighting; and to upgrade fire doors. This fire protection project was initiated with \$65,000 appropriated in FY 1983. A sum of \$120,000 expected to be sought in FY 1986 will complete this project.

In FY 1985, the National Museum of American History's collections storage Building 19 at the Suitland Facility, is scheduled to be upgraded to allow for receiving, processing and storage of artifacts. An amount of \$160,000 is needed in FY 1985 to install fire protection systems. This work will include installing smoke detection and wet pipe sprinkler systems throughout the building's storage and work areas for the protection of the collections and the staff.

Funding of \$150,000 is requested in FY 1985 to continue fire protection projects at the Smithsonian Institution Building, such as installing sprinkler systems in the basement. Sprinkler systems and fire-rated partitions also will be installed throughout the building. With \$145,000 appropriated in FY 1983, smoke detection systems were designed and installed. Smoke detector and sprinkler systems will continue to be installed with funds of \$150,000 appropriated in FY 1984. An amount of \$600,000 is expected to be sought through FY 1989 to continue the project.

An amount of \$175,000 is requested in FY 1985 for three additional fire protection projects. For the Renwick Gallery, \$80,000 is sought to install wet pipe sprinkler and alarm systems in basement areas; for the Air and Space Building, \$20,000 is needed to install a wet pipe sprinkler system above the kitchen area which has been determined to be a fire hazard; and for the Arts and Industries Building, an amount of \$75,000 is requested to continue the fire protection measures initiated with funds appropriated in FY 1982 (\$75,000) and in FY 1983 (\$75,000). Smoke detection systems are being installed in the four major exhibit halls. An amount of \$325,000 is expected to be required through FY 1989 to continue the Arts and Industries project.

ACCESS FOR THE DISABLED, SAFETY AND SECURITY AND CORRECTION OF HAZARDOUS CONDITIONS (\$1,215,000): Progress is being made on correcting facility conditions to improve the security of the National Collections, promote improved environmental conditions for the health and safety of visitors and staff, and to provide better access to Smithsonian facilities for the disabled. Examples of recent accomplishments include removal of asbestos from areas in the American Art/Portrait Gallery, American History and Natural History Buildings; restroom modifications at the American History and Natural History Buildings; and safety improvements to one of the National Museum of American History's storage buildings at the Suitland Facility.

The safety and security of collections, visitors and staff necessitate facilities modifications. Major attention will continue to be placed on the containment or

removal of asbestos materials located in various Smithsonian facilities. Asbestos has been identified in the American Art/Portrait Gallery Building; the American History Building; the Natural History Building; the Arts and Industries Building; and in a number of buildings at the Suitland Facility. Additional areas contain asbestos, primarily the mechanical equipment rooms in several other buildings. Funds of \$850,000 appropriated for this purpose in FY 1981 through FY 1983 were applied toward the containment and removal of asbestos in the attics, mechanical equipment rooms, skylight areas and exhibit halls of the American Art/Portrait Gallery Building; in the carpentry shop in the Natural History Building; and in the television studio and some basement areas in the American History Building. Asbestos also will be contained in other areas throughout the American History Building with funds of \$300,000 appropriated in FY 1984. A further amount of \$400,000 is sought in FY 1985 to continue this program at the American History Building to complete asbestos removal in the basement and fourth floor mechanical rooms; for asbestos abatement of the National Museum of American History's Storage Building 19 at the Suitland Facility; and asbestos abatement work in other Mall museums. An amount of \$2.0 million will be required through FY 1989 to continue this program.

Another major project under way during the next five years is the conversion to an electronic security and fire alarm system owned and operated by the Smithsonian. The purposes of converting to a proprietary security system are to gain faster response times to security and fire protection alarms; to improve the quality and control of information transmitted from security devices and fire sensors to building security offices and the central control room; and to eliminate reliance on leased equipment, outside sources of power and related contractual services, the costs for which are escalating rapidly. Current cost estimates for FY 1982 through FY 1989 for the R&R portion of the phased conversion total approximately \$2.9 million. Funds appropriated in FY 1982 (\$300,000) and FY 1983 (\$300,000) were used to purchase permanently installed equipment, including the computer and necessary building modifications to accommodate this equipment in the central control room of the Smithsonian Institution Building. This equipment is connected to the control room at the Museum Support Center. Funds of \$300,000 appropriated in FY 1984 are being used to begin procurement of similar equipment for other Mall buildings. A further amount of \$400,000 is requested in FY 1985 for modifications needed for the installation of security equipment at the Natural History, Freer Gallery, Smithsonian Institution, American History and Arts and Industries Buildings. (Funding of \$440,000 for the proprietary security system also is included in the Salaries and Expenses base of the Office of Protection Services for the purchase of computer related equipment, annunciation equipment and its installation. The Restoration and Renovation of Buildings account is being used to fund building modifications and permanently installed equipment.)

During FY 1980, the north and south entrances at the Natural History Building were modified to improve access and to increase emergency exit capabilities. An amount of \$200,000 is needed in FY 1985 to complete the north and south entrances and Mall entrance gate modifications to meet safety and security requirements. These modifications will include renovating the west corridor to the Learning Center; repairing, cleaning and finishing all bronze surfaces at north and south entrances; and installing and finishing new bronze railings.

Also, for the Natural History Building, an amount of \$85,000 is requested in FY 1985 to replace the Mexican tile in the service area. These are natural, unbaked clay tiles and are susceptible to breaking and spalling, creating a safety hazard and a maintenance problem. The entire floor will be replaced with a more durable tile better able to withstand the heavy traffic in this area and provide safe access to the cafeteria.

For FY 1985, an additional amount of \$130,000 is sought for three security projects. For the Suitland Facility, \$60,000 is needed for the installation of emergency generators. Commercial power outages at the Suitland Facility result in damage to plumbing; loss of heating, air conditioning and humidity controls in collection storage areas which require stable environmental conditions; and interruptions to security and fire systems. Every building at the Facility is subject to one or more of these problems when a power outage occurs. The emergency generators will improve electrical service reliability. For the American Art/Portrait Gallery Building, \$50,000 is requested to upgrade the present exterior security lighting systems. This work will include replacement of existing and installation of additional lighting fixtures, and installation of a lighting control panel which will enable security personnel to control exterior lights. For the Renwick Gallery Building, \$20,000 is requested to wire the windows for a security system. As part of the facade restoration, new windows are being installed. Conduit and wiring will be installed for an impact-sensing security system, and for necessary connections to the control and monitoring panel located at the security office.

UTILITY SYSTEMS REPAIRS AND IMPROVEMENTS (\$2,785,000): Funds appropriated in this category are used to maintain, repair and upgrade the heating, ventilating and air conditioning systems (HVAC) and plumbing and electrical systems in the Institution's facilities. Proper maintenance and improvements of these systems are essential for increasing energy efficiency and for providing stable temperature and humidity conditions necessary for the preservation of the collections. Scheduled repairs and replacements of deteriorated equipment components require a consistent level of funding, and major renovations and repairs are required in many Smithsonian buildings where utility systems were not designed with the aid of today's energy saving technologies.

The Institution is making a concerted effort to conserve energy (see the Uncontrollables section for a description of these efforts). The most significant energy savings, however, will be realized by the application of substantial resources toward upgrading HVAC systems, replacing obsolete equipment and improving the efficiency of environmental zones. HVAC systems have been modified over the years as the Institution's programs have grown, as the functions of the buildings have changed and as the environmental needs of the collections have become understood better. Prior to 1972, energy conservation did not represent a primary consideration. An integrated approach now is required in order to plan for long-range, systematic HVAC improvements that will meet museum environment requirements in an energy efficient manner.

Comprehensive HVAC studies and energy audits have been conducted for most of the buildings in order to begin planning for improvements to be completed in future years. The scope of the HVAC studies included field investigations of age, condition and performance of existing equipment, controls and current operating conditions; reviews of existing drawings, specifications, operating manuals and hygrothermograph records; an analysis of the relationship between the building structures and the HVAC systems; and an assessment of programmatic needs for environmental control. The data gathered by these studies are providing a basis for determining redesign or replacement needs of existing HVAC systems; for development of construction cost estimates or revision of previous cost estimates; and for establishment of priorities for the repair, replacement or modification of such component equipment as air handling units, chillers, condensers, compressors, cooling towers, automatic temperature and humidity controls, pumps, pipes, fans, filters, ductwork and related electrical and plumbing systems. At the same time, energy audits are being performed to investigate all factors relating to energy use, such as power-consuming equipment and building conditions (doors, windows, insulation, floors and partitions, etc.). Current energy consumption and costs are being evaluated; energy conservation opportunities are

being identified; projected savings are being calculated; and plans are being developed to carry out the recommended energy conservation measures.

For FY 1985, an amount of \$2.785 million is sought to continue work on HVAC renovation projects begun in FY 1981 and to initiate new projects to provide the environmental, temperature and humidity controls necessary to prevent irreparable damage to the millions of items on display or stored in Smithsonian facilities.

At the American History Building, a comprehensive HVAC study initiated using \$100,000 appropriated in FY 1981 was completed in 1982. Additional monies appropriated in this category between FY 1981 and FY 1983 (\$1,035,000) were used to replace 12 deteriorated air handling units in 1983. In FY 1984, \$250,000 was appropriated to continue HVAC renovation with the replacement of the cooling tower in the spring of 1984. For FY 1985, an amount of \$1.8 million is requested for the preparation of drawings and specifications for the first phase of the HVAC renovation based on the study findings and to begin implementation of the design. Difficulty in maintaining necessary environmental conditions is due, in part, to the age and construction of the building and the age and design of the HVAC system and its controls. The study findings indicate upgrading of the mechanical system is necessary to bring the existing HVAC system up to acceptable museum standards of operating efficiency and reliability. An amount of \$3.7 million is expected to be sought through FY 1988 to complete this project.

At the Air and Space Building, an environmental control and energy conservation study was completed in 1982. Based on the study findings, modifications to HVAC equipment and systems are needed to improve environmental conditions. Other projects proposed include lighting level and control improvements, refurbishing existing air handling unit components, and replacing or modifying eliminators. An amount of \$250,000 is requested in FY 1985 to initiate the design of these HVAC modifications. A further amount of \$1.3 million is expected to be sought through FY 1987 to complete this project.

For FY 1985, an amount of \$100,000 is sought to construct the first phase of a communication system which will consist of: two microwave links connecting Amado, Arizona, to the Mt. Hopkins Summit and the Summit to Tucson, Arizona; and private phone systems in Amado, on the mountain and in Tucson. Due to the geographical location of the Whipple Observatory, improved communications are critical to its efficient operation. Changes in astronomical data collection techniques, travel costs and government deregulation of the communication industry caused a reexamination of the Observatory's present communication system. As a result, it has been determined that a new communication system will be more cost effective and enhance the use of the telescopes. The Observatory has pioneered a system of remote observing where data are taken by a resident technician, using computers, for the astronomers. This system is viable scientifically only so long as the astronomers can spot check the data frequently as it is taken by computers and transmitted between the computer and astronomers. The slow rate at which the Observatory now can transmit spot check data over the existing phone lines is the major problem. The proposed system will increase the rate of transmission by a factor of 100 and will make remote observing more effective. For the astronomers in Tucson, the final data will be available immediately for reduction. The new communication link will interconnect the Observatory's computers which will increase operation efficiency, reduce travel costs and time, and allow for long distance trouble shooting of equipment problems. Additional funds may be sought in future years to complete construction of the communication system at the Whipple Observatory.

For the Arts and Industries Building, an amount of \$150,000 is requested in FY 1985 for the design of the tunnel system renovation. Covered tunnels in the

basement house steam, condensate and rain water piping. Existing piping and insulation have outlived their life expectancy and have deteriorated beyond repair and steam is leaking in some places. Also, the location and size of the tunnel system make repairs extremely difficult and in some areas inaccessible.

A comprehensive energy conservation study completed for the Cooper-Hewitt Museum was initiated with funds appropriated in FY 1982. An amount of \$300,000 is sought in FY 1985 to design and to begin implementation of the study findings. Major components of the HVAC system will be replaced in order to maintain proper environmental conditions for the collections. Other projects include: construction of a new entrance vestibule; replacing deteriorated windows and frames; weather stripping exterior doors; and improvements to the air distribution system, chiller-cooling tower, and temperature control system. An additional amount of \$1.7 million through FY 1987 will be requested for this project.

An amount of \$60,000 is requested in FY 1985 for the Smithsonian Institution Building to replace the electrical wiring on the first floor west section and the Flag Tower. With funds of \$110,000 appropriated in FY 1982, 84 major wiring renovations were made on all floors of the east section. A further amount of \$200,000 is expected to be sought through FY 1989 to continue upgrading and expanding electrical wiring and conduit systems.

For FY 1985, an additional amount of \$125,000 is sought for two utility projects. For the Arts and Industries Building, \$75,000 is requested to renovate the public and staff rest rooms on the ground floor permitting better maintenance and operation of these facilities. Currently, the plumbing fixtures are outmoded and difficult and costly to maintain. Also, the piping is deteriorating and in need of replacement. For the Air and Space Building, \$50,000 is needed to begin replacement of 50 reheat coils as a part of a preventive maintenance plan and a further amount of \$200,000 will be sought through FY 1987 to complete this project.

OTHER PROJECTS (\$3,290,000): Projects in this category support the maintenance and development of the Institution's outlying facilities and other projects designed to meet programmatic objectives in the areas of research, collections management and education. Recent accomplishments in this category include the following: completion of the Whipple Observatory's road safety improvements; construction of the Smithsonian Tropical Research Institute's (STRI) library at Tivoli; and renovation of STRI's Building 359 at Naos Island in Panama.

-- Suitland Facility - (\$700,000)

For the National Museum of American History, an amount of \$500,000 is requested in FY 1985 for the design and renovation of collection storage Building 19. Improvements will include upgrading temperature and humidity controls to provide the proper environment for storage of collections; special lighting for large object conservation; space modifications for an object processing laboratory; administrative and storage areas; and special conservation furnishings and equipment.

The Suitland Facility has grown over the years. It is a collection of prefabricated (Butler) buildings which house storage and conservation functions of some of the Mall museums--the National Museum of American History, the National Museum of Natural History/Museum of Man and the National Air and Space Museum. Increasing utility needs, new space requirements and problems with surface drainage indicate the need for a plan for growth. An amount of \$200,000 is requested in FY 1985 to develop a master plan which will include surveys of existing conditions, projected program requirements for the Facility, the impact of the Museum Support Center and long range development of the entire 100 acre site. An additional amount of \$100,000 is expected to be sought in FY 1986 to complete this project.

-- Smithsonian Tropical Research Institute - (\$1,015,000)

For FY 1985, an amount of \$895,000 is requested for the design and construction of a new dormitory on Barro Colorado Island in Panama. Research work at the Island requires constant monitoring of projects so staff must remain on the Island for extended periods of time. The 30-room dormitory will be constructed entirely of concrete which will eliminate dry rot and termite problems that continually damage the wood buildings on the Island. It will house 60 people and will have a solar hot water heating system.

An amount of \$120,000 also is needed in FY 1985 to continue the development of a master plan initiated with funds appropriated in FY 1981 (\$25,000) and in FY 1982 (\$50,000). STRI is custodian of a principal tropical site used for conducting basic biological research. Tropical wilderness areas are diminishing rapidly and high priority must be given to the development of a modern and efficient system of laboratories and support facilities needed for this basic research. The master plan will develop requirements for the physical planning of facilities that will fulfill STRI's present and future programmatic requirements. It will provide guidance for future program development and comprehensive development plans for the physical plant. It also will comply with regulatory bodies as required by both national and international agreements.

-- Smithsonian Astrophysical Observatory, Whipple Observatory - (\$300,000)

For FY 1985, an amount of \$40,000 is requested for the design of an Administration Building. This building will replace an existing leased facility, a 50-year-old schoolhouse which lacks adequate space and basic requirements, such as sufficient electrical power and insulation. The 4,800 square foot Administration Building will be the center of activity for the Observatory base camp. It will house all of the administrative offices and will include common areas, such as library and conference rooms, lunch room and bunk room for staff at the Observatory and Multiple Mirror Telescope (MMT).

An amount of \$260,000 also is sought in FY 1985 for the construction of a new 1,500 square foot concrete block support building for the MMT and for space modifications inside the existing MMT building to accommodate an aluminizing shop. Currently, the support shop is located inside the MMT and the space is inadequate for efficient operations. The construction of a new MMT support building will consolidate support operations in one building and free up space suitable for the aluminizing shop. The support building will contain areas for instrument storage; shop and maintenance supply storage; maintenance personnel offices; an uninterrupted power source for all MMT computers; and a switchgear. The aluminizing process is done annually for all telescopes at the Whipple Observatory to maintain the high reflective surfaces needed. Currently, mirrors requiring aluminizing must be transported at great risk from the mountain to a facility in Tucson, Arizona. The aluminizing shop will eliminate transportation risk and loss of staff time arranging the transportation of the mirrors.

-- Smithsonian Institution Libraries - Space Modifications (\$230,000) - With funds of \$200,000 appropriated in FY 1980, the first renovation phase was completed for the space modifications of the Smithsonian Institution Libraries located in the Natural History Building. With funds of \$165,000 appropriated in FY 1984, the Reader Services areas will be renovated. For FY 1985, an amount of \$230,000 is requested to continue modifications to the Smithsonian Institution Libraries areas. These include: modifications required to accommodate planned expansion of automated bibliographic control activities; space alterations necessary to improve workflow and overall operational efficiency through physical realignment of spaces occupied by

closely related Libraries support functions; installation of fire detection and suppression systems; and essential lighting improvements in several areas. An amount of \$385,000 is expected to be sought through FY 1987 to complete this renovation work.

-- Smithsonian Environmental Research Center - Master Plan (\$185,000) - For the Smithsonian Environmental Research Center (SERC) in FY 1985, an amount of \$185,000 is needed to complete the development of a master plan initiated with funds of \$130,000 appropriated in FY 1984. SERC was created in July 1983 with the merger of two science bureaus, the Radiation Biology Laboratory (RBL) and the Chesapeake Bay Center for Environmental Studies (CBCES). The RBL presently occupies leased facilities in Rockville, Maryland, and prior to its lease expiration in 1990, the two bureaus will be integrated at the Chesapeake Bay site. The integration of the programs for RBL and CBCES will be strengthened as facility and site improvements are phased in prior to 1990. A major goal of the master plan is the integration of RBL's and CBCES' research and administrative operations. The master plan addresses existing facilities and recommends plans for physical plant development to meet the short- and long-term goals of SERC. Upon completion of the master plan, the Institution will be able to develop detailed designs for specific buildings, site improvements and utility systems. An amount of \$300,000 is expected to be sought in FY 1986 to complete the master plan.

-- National Air and Space Museum - Dulles Master Plan (\$135,000) - The National Air and Space Museum (NASM) building was designed with the concept that storage of aircraft and other objects would be achieved at a remote location. Presently, the Museum maintains temporary metal buildings at Suitland, Maryland, which are inadequate for the storage or exhibit of large air and space craft such as the Concorde or the Space Shuttle, which eventually will become part of NASM's collection. After thorough investigation of area airport facilities, the Museum has identified Federal land at the Dulles Airport reservation site that could accommodate the Museum's air transportation requirements, as well as construction of larger hangar-type buildings needed for storage and exhibition purposes. An amount of \$135,000 is requested in FY 1985 to begin development of a master plan for the Dulles site. An additional amount of \$300,000 is expected to be sought in FY 1986 to complete this project.

-- National Museum of American History - Relocate Security Offices (\$125,000) - The National Museum of American History has a plan to renovate and expand its exhibit areas. The opening of the ground floor northwest central area is part of this plan and will necessitate the relocation of the existing main security office. The areas which best fulfill the needs of the security function are basement spaces formerly occupied by the plastic and graphic arts shops. Because of the sensitive security functions, this space conversion is more complex and consists of the following: construction of new interior partitions, doors, ceilings, and lights; a dedicated electrical system tied to an emergency power source; HVAC work to provide 24 hour environmental control; relocate security panels and annunciation boards; and reworking of the marble escalator lobby wall for a public inquiry counter.

-- Anacostia Neighborhood Museum - Expansion (\$400,000) - Currently, the Anacostia Neighborhood Museum's public exhibition and some associated support spaces remain in the leased Carver Theater on Martin Luther King Avenue. The immediate area surrounding the Theater has been the site of an increasing number of crimes, many of which have been violent. Although the Metropolitan Police Department has been cooperative in response to Smithsonian requests for additional security measures, the area no longer is safe for Museum staff or visitors, many of which are large groups of children from local schools. Also, the building is old and in need of costly renovations, including replacement of the heating, ventilating and air conditioning (HVAC) systems as well as repair or replacement of the existing roof to prevent recurring leaks which could seriously damage the valuable collections on display.

For FY 1985, an additional amount of \$400,000 is sought to begin construction of the 5,800 square foot expansion to the Exhibits Laboratory Building at Fort Stanton Park. An amount of \$450,000 was appropriated in FY 1984 for the design and construction of the Exhibits Laboratory Building expansion of which \$65,000 was used for design. An amount of \$385,000 is available in addition to the \$400,000 needed in FY 1985 for construction. Construction costs are higher than initially estimated because of the late recognition of the degree of aesthetic and performance qualities required for the new facility. Neighborhood and Museum dissatisfaction with the appearance of the existing Exhibits Laboratory, in a National Park setting, has mandated the design of a building of higher quality and appearance. Furthermore, operating difficulties of the Exhibits Laboratory caused by inadequate design and construction quality has necessitated appropriate provision for overall building performance. An additional factor in the increase in cost is the provision for adequate space for exhibit staging, not previously included.

This expansion will provide the Museum safe, dry, environmentally controlled exhibition and support areas as well as enable the Museum to remain open to the public while installing or dismantling exhibits which is not possible at the Carver Theater due to the lack of an exhibits staging area.

It is anticipated that rental cost savings realized will be applied to equipping and furnishing the new exhibit area at the Fort Stanton Park facility.

-- Advanced Planning and Design Funds - (\$200,000) - For FY 1985, an amount of \$200,000 is requested for both advanced planning and advanced design of projects in all of the subaccounts within the Restoration and Renovation of Buildings (R&R) account. For the majority of the R&R projects, particularly projects which are not phased and require only one year funding, the project request includes funds for planning, design and construction. The planning and design stages require approximately ten percent of the project's funds, but may take from one to 12 months to complete depending upon the project's complexity. Construction costs escalate at a rate of one-half percent a month, so that six percent of a project's construction funds could be lost in one year. Advanced planning and design funding will enable the Institution to develop better cost estimates and to contract for construction as soon as the R&R Appropriation is received. An additional amount of \$1.45 million is expected to be sought through FY 1989 to continue this program.

PHYSICAL PLANT CONDITION BY FACILITY

Introduction

This report, an overview of Smithsonian facilities, identifies individual building conditions and summarizes repairs and improvements for the period FY 1985 through FY 1989 that are appropriate for funding within the Restoration and Renovation of Buildings account. The total cost estimate for these facility requirements from FY 1985 through FY 1989 is \$112.73 million. The Restoration and Renovation of Buildings Appropriation account categories are as follows: General Repairs; Facade, Roof and Terrace Repairs; Fire Detection and Suppression Systems; Access for the Disabled, Safety and Security and Correction of Hazardous Conditions; Utility Systems Repairs and Improvements; and Other Projects.

ANACOSTIA NEIGHBORHOOD MUSEUM

The Anacostia Neighborhood Museum leases a building in Anacostia which provides space for exhibition and some administrative functions. This facility is in disrepair and unsuitable for long-term occupancy. The Museum's Exhibits Laboratory, constructed in 1976, is located at Fort Stanton Park on National Park Service property. This 10,500 square foot building houses administrative, exhibit, shop, storage and research activities. Although the Exhibits Laboratory is in good condition, a roof replacement is needed.

Funding is being sought in FY 1985 for the construction of an expansion to the Exhibits Laboratory of approximately 5,800 square feet to replace the leased facility in Anacostia. Additional funds will be requested in this planning period for roof replacement, for the installation of an elevator and development of a master plan. Total anticipated costs for the period FY 1985 through FY 1989 are estimated at \$1.005 million.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Expansion - Construction	400				
Roof Replacement	200				
Install Elevator					55
Master Plan - Poplar Point				100	250
TOTALS	600	-	-	100	305

ARTS AND INDUSTRIES BUILDING

The Arts and Industries Building, constructed between 1879 and 1881, contains more than 140,000 square feet of exhibition, staff and storage space. The most recent restoration and renovation of the exhibition halls and entrances was completed for the Bicentennial Celebration.

Extensive renovation of the Arts and Industries Building roof and exterior is in progress to ensure watertightness and energy efficiency. Remaining work for two roof quadrants includes roof replacement, replacement of gutters and downspouts, repairs

and replacement of window components, and pointing and caulking. Space improvements and plumbing repairs are needed. Improvements to the building's heating, ventilating and air conditioning (HVAC) system are required to establish better control over temperature and humidity variations. HVAC improvements include: installation of an energy conserving system to help regulate temperatures; addition of reheat coils; modification of controls on air handling units; addition of new steam humidifiers; replacement of the cooling tower; and relocation of unsightly roof mounted mechanical equipment. Other utility projects include the upgrading of electrical wiring and removal of unused electrical and plumbing conduit. Additional smoke detection and sprinkler systems also are required.

These and other building requirements are estimated to cost approximately \$13.795 million through FY 1989 with additional funds anticipated beyond this period to complete the building's renovation.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs		50	50	50	50
OPS - Industrial Hygiene Lab and Office					40
Install New Ceiling, 1st Fl., S.W. Corridor					30
Roof & Facade Renovation	2,500	1,500			
Smoke Detection/Sprinklers	75	100	75	75	75
Plumbing Repairs	75				
HVAC Renovation/Energy Conservation		2,100	2,300	2,500	
Tunnel Renovation	150				
Space Improvements		<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
TOTALS	2,800	4,250	2,925	30125	695

SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER

The Smithsonian Environmental Research Center was formed by the merger of the Radiation Biology Laboratory in Rockville, Maryland and the Chesapeake Bay Center for Environmental Studies, near Edgewater, Maryland in July 1983. The Edgewater site is located on approximately 1,800 acres acquired by the Smithsonian since 1963, and an additional 800 acres restricted by covenant to Smithsonian use. Current facilities include an administration building with a laboratory addition, an education and dormitory building, a new maintenance building, several small farm buildings and several trailers. A new water system has been installed to meet domestic water needs, as well as to provide fire protection. The newer facilities are in good condition, but road repairs and utility systems improvements are needed; some of the buildings' roofs require repairs; and modifications are needed to provide access for the disabled.

It is estimated that \$1.485 million will be required during the planning period FY 1985 through FY 1989 to perform road repairs and improvements, accomplish modifications required for access for the disabled, develop a master plan and make modifications to provide improved laboratory facilities. In addition, it is expected that funding will be sought in FY 1986 and in FY 1987 for the design and construction of a laboratory, four greenhouses, a wet laboratory, modifications to existing facilities, and utility improvements at the Edgewater site. This development is identified in the Institution's Five-Year Prospectus FY 1985-FY 1989 and in the construction section of this budget request.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Road Repairs		100	100	100	100
General Repairs	20	30	30	30	30
Roof Repairs	90				
Visitor Center - Disabled Access - Rest Room					25
Administration Building - Disabled Access					25
Master Plan	185	300			
Utility Improvements		30	30	30	30
Calf Barn Modifications		200			
TOTALS	295	660	160	160	210

COOPER-HEWITT MUSEUM

The Cooper-Hewitt Museum, acquired by the Smithsonian in 1968, is housed in the historic Carnegie Mansion and the adjoining Miller House (brownstone) in New York City.

Built in the early 1900s, the 64 room mansion was renovated with nonappropriated Trust funds in the early 1970s, and opened to the public in 1976. The renovation project and subsequent efforts have restored the mansion to a fair condition. However, due to its age, repairs and improvements are required. Modifications are necessary for safety and security, as well as to provide access for the disabled. Also, HVAC modifications are needed to improve energy efficiency.

It is estimated that \$2.605 million will be required to accomplish necessary repairs and improvements during the planning period FY 1985 through FY 1989. In addition, as noted in the Smithsonian Five-Year Prospectus FY 1985-FY 1989 a proposal for future construction of a new wing between the Carnegie Mansion and the Miller townhouse is pending before the Board of Regents. It is anticipated that this project will be funded from Smithsonian Trust Fund resources, as well as private contributions.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs	20	20	20	20	20
Window Replacement	150	300			
Wood Flooring - Repair, Replacement (1st Floor)					30
Fence Restoration - Repair and Painting		50			
Elevator Improvements - Miller House					10
Roof Repairs - Carnegie Mansion					50
Emergency Generator			45		
Disabled Access Ramp - Carnegie Mansion					10
Electrical/Mechanical/Plumbing Study - Miller House			35		
HVAC/Electrical/Plumbing Repairs	150	600	800		
Attic Space Renovation			25	250	
TOTALS	320	970	925	270	120

AMERICAN ART/PORTRAIT GALLERY BUILDING

The Old Patent Office Building, constructed between 1836 and 1866, was transferred by the General Services Administration to the Smithsonian in 1958. The building, a National Historic Landmark, was renovated from 1965 to 1968. Currently, it houses the National Museum of American Art, the National Portrait Gallery and the Archives of American Art, providing approximately 250,000 square feet of space for exhibitions, collections storage and staff activities. The building is in good condition but exterior repairs and mechanical system replacement are required.

Extensive recaulking and repointing of the building's facade and major repairs to the roof have been completed using prior year funding. Major repair and replacement of a portion of the stone facade will be necessary in this planning period. This stone, which is similar to local stone used at the United States Capitol Building, is in poor condition. The heating, ventilating and air conditioning system requires major upgrading to correct existing deficiencies and to improve environmental control and energy efficiency. In addition, fire safety, health and security improvements and interior renovations are needed.

Approximately \$9.99 million will be sought in this planning period for these and other building requirements.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Space Improvements - Archives	100				
General Repairs - Storage Space		120	145		
Window and Trim Painting					75
Stone Repairs	150	180			
Sprinkler Systems	180	120			
Public Address System			150		
Upgrade Exterior Security Lighting	50				
Building Accessibility Study/Implementation					20
Dust Abatement - Shop Areas			50		
HVAC Renovations				1,200	4,900
Electrical/Plumbing Repairs					50
Building Renovations, Design/Construction			<u>500</u>	<u>2,000</u>	
TOTALS	480	420	845	3,200	5,045

FREER GALLERY OF ART

The Freer Gallery of Art, constructed between 1916 and 1921, was opened to the public in 1923, providing 68,000 square feet of exhibition, staff and collections storage space. The building is in good condition. There is a requirement to provide access for the disabled at a major entrance and space modifications will be required in this planning period.

Completion of the major elements of the fire and electrical improvements were accomplished in FY 1984. Other minor repairs and improvements including skylight repairs are programmed through the five-year planning period. These requirements are estimated to cost approximately \$2.925 million.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Attic and Space Modifications (Office and Rest Room)					60
Skylight Repairs		265			
Public Address System Installation					100
Disabled Access - Entrance		500			
Space Conversion, Design/Construction		<u>2,000</u>			
TOTALS	-	2,765	-	-	160

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

The Hirshhorn Museum and Sculpture Garden, opened to the public in 1974, provides 226,000 square feet of exhibition, staff and collections space. A project was completed to correct staining on the facade and two cooling towers will be replaced in 1984.

The Museum plaza has incurred surface deterioration and some cracking. Repairs to the most deteriorated surfaces have had limited success and it is expected that the entire plaza will have to be replaced. Additional sprinkler systems will be installed and a master plan for space use will be developed during this planning period. A comprehensive energy conservation survey for the building has been completed. Adjustments and alterations to the building's heating, ventilating and air conditioning systems are required to conform to current museum environmental standards.

These projects and other minor improvements are expected to cost about \$4.77 million during this planning period.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs		50	50	50	50
Pave Tunnel - Tunnel Storage					70
Plaza Resurfacing					3,000
Minor Safety/Security Projects			60		
New Rest Room Construction					75
Sprinklers - Extension to Mechanical/ Electrical Rooms			105		
Energy Study Implementation		600	400		
Space - Master Plan Study		100	125		
Sculpture Garden Paving					<u>35</u>
TOTALS	-	750	740	50	3,230

NATIONAL MUSEUM OF AFRICAN ART

Located on Capitol Hill in Washington, D.C., the National Museum of African Art occupies the historic Frederick Douglass House, seven contiguous townhouses and several other structures. The Smithsonian acquired these properties in 1979. They are estimated to average about 100 years in age and are of poor quality construction and unsuitable as a museum. Upon acquisition, the Smithsonian installed an elevator in the Douglass House, added security systems, provided access for disabled persons and renovated approximately 1,750 square feet of patio space. These projects cost approximately \$320,000 and were intended to eliminate the most serious safety and access problems. It is estimated that approximately \$20,000 will be required in FY 1985 to provide minimal repair and maintenance of the structures and supporting building systems. No other major improvements are planned, pending the relocation of the Museum to the Quadrangle.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs	<u>20</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>
TOTALS	20	-	-	-	-

* Museum will move in early 1986.

NATIONAL MUSEUM OF AMERICAN HISTORY

The National Museum of American History, which opened to the public in 1964, contains approximately 213,000 square feet of exhibition, staff and collections space. Although in good condition, the building requires continuation of the phased upgrading of its fire protection systems, heating, ventilating and air conditioning systems and facade, roof and terrace repairs.

Further work on the Fire Protection Master Plan is continuing in FY 1984. HVAC improvements will continue throughout this planning period with the replacement of a cooling tower in conjunction with the first phase of the roof replacement. Other projects included in this planning period are modifications for disabled access, space modifications, and replacement of windows and doors.

These and other requirements are estimated to cost \$12.27 million between FY 1985 and FY 1989.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Security Office Relocation	125				
Registrar's Facility Alterations					25
General Repairs		100	100	100	
Replace Ten Stairwell Doors					25
Cold Room Improvements	125				
Terrace Repair - Ramp/Canopy Removal/ Glass Installation					925
North-South Entrance Doors - Replacement					245
Roof Replacement - Design and Construction	710				
Fountain Renovation - Planning and Design					175
Fire Protection Master Plan Implementation	200	700	500	500	500
Upgrade Public Address System	100				
Fourth Floor Security					80
Disabled Access - Modifications		50	50	50	
HVAC/Energy Implementation	1,800	2,000	1,000	700	
Window Replacement			570		
TV Studio Mezzanine					265
Joseph Henry Papers Relocation		350			
Space Modifications		200			
TOTALS	3,060	3,400	2,200	1,350	2,240

NATIONAL MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN

The National Museum of Natural History/Museum of Man was completed in 1911, and identical east and west wings were added in 1963 and 1965, respectively. In 1975, an open interior court was enclosed and divided into three levels to create additional space primarily for public use, bringing the total building area to 1,000,000 square feet.

The most important requirement for this building is continuation of the phased installation of fire detection and suppression systems. The fire protection program, which also includes related architectural modifications, will continue through the planning period and beyond. In the utility systems category, major heating, ventilating and air conditioning improvements are required in order to achieve energy conservation, to control temperature and humidity and to improve air circulation. Some of these projects to be completed include repair of the main cooling tower, replacement of the HVAC control system and replacement of air handlers. Electrical and plumbing renovations are required in tunnels to replace and to remove deteriorated and obsolete equipment. Projects needed to protect the building's exterior, some which also would improve energy efficiency, include repointing and recaulking the facade and replacing the roof. Space modifications for exhibition purposes are planned, as well as modifications to improve access for the disabled in staff and public areas, and modifications to improve library facilities. These and other building requirements are estimated to cost approximately \$33.69 million between FY 1985 and FY 1989.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Hall 16 Demolition - Skylight Renovation	80				
Staff Rest Rooms - W. Loading Dock					40
Baird Auditorium - Mechanical Lift Study					35
Hall 30 - Demolition			50		
Hall 27 - Demolition			70		
Mall Checkroom Improvements					15
Facade - Caulking and Pointing	250	300			
Fire Protection - Master Plan Implementation	500	500	500	400	400
North-South Entrance Modifications	200				
Dome Safety Ladder and Platform					35
New Interior Handrails			150		
Photo Laboratory Improvements					65
West Court - Replace Mexican Floor Tiles	85				
HVAC/Energy Conservation Implementation		2,000	8,000	8,000	8,000
Tunnel Renovation		50	50	50	50
Roof Replacement		200	1,000	2,000	
S.I. Libraries - Space Modifications	<u>230</u>	<u>170</u>	<u>215</u>		
TOTALS	1,345	3,220	10,035	10,450	8,640

NATIONAL AIR AND SPACE MUSEUM

The National Air and Space Museum, which opened to the public in 1976, provides approximately 500,000 square feet of exhibition, staff and support space, including a parking garage. Roof, facade and terrace repairs are needed due to water intrusion and weathering problems.

Corrective facade work has started and is expected to include recaulking, repair of some marble and related flashing, reinsulation at parapets, and flashing of copings. The terrace will require reconstruction of waterproof membrane, replacement of drains and a new paving system, and these repairs are projected to begin in this planning period. HVAC system modifications and implementation of energy conservation measures, primarily associated with the mechanical systems, are projected in the current five-year plan, as well as additional fire and safety programs and the development of a master plan.

These and other requirements are estimated to cost \$8.915 million through FY 1989. In addition, it is expected that funding will be sought in FY 1987 and FY 1988 for design, site preparation and construction of a hangar type exhibition and storage facility at the Dulles Airport, and using Smithsonian Trust Fund concession revenues, construction by FY 1985 of a new public restaurant facility on the east terrace of the National Air and Space Museum is contemplated. These projects also are identified by the Smithsonian Five-Year Prospectus FY 1985-FY 1989 and the construction section of this budget request.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Install Removable Plate Eliminators in HVAC System					150
Plaza Surface Replacement			200	4,500	
Paint Structural Trusses					125
Roof Repairs					300
Fire Protection Master Plan		125	100	100	100
Sprinklers - Kitchen Ceiling	20				
Facade Repairs		100	200	200	200
Emergency Telephone, Lighting and Stair Modifications		260			
Energy Study - Implementation	250	1,000	300		
Dulles Master Plan	135	300			
Replace Reheat Coils	<u>50</u>	<u>50</u>	<u>150</u>		
TOTALS	455	1,835	950	4,800	875

RENEWICK GALLERY OF ART

The Renwick Gallery of Art, constructed between 1859 and 1874, was originally designed to house the Corcoran Gallery of Art. In 1897, the Corcoran moved to its current location and the building was purchased by the government. It was transferred to the Smithsonian in 1965 for restoration to its original purpose as an art museum. The building is a National Historic Landmark.

The brick portion of the facade is in good condition, but the exterior stone and windows have deteriorated seriously; stone and window replacement are under way and will be completed with funds requested in FY 1985. Scheduled replacement of mechanical equipment, installation of emergency lighting and new security systems and general maintenance projects are planned through FY 1989.

These requirements are estimated to cost \$1.09 million in this planning period.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Facade Renovation	500				
Security - Electrical Wiring Devices	20				
Roof Repairs					50
Sprinklers - Basement	80				
Emergency Lighting					50
Install Public Address System					50
Energy Study Implementation		50	250		
Space Utilization Study - Basement			<u>40</u>		
TOTALS	600	50	290	-	150

WHIPPLE OBSERVATORY, MT. HOPKINS, ARIZONA

Established in 1968, the Fred L. Whipple Observatory is located on 390 acres and buffered by an additional 4,354 acres of National Forest Service land on Mt. Hopkins, near Tucson, Arizona. Facilities on the mountain include a Multiple Mirror Telescope at the summit and other telescopic observation and support structures, dormitory/dining facilities and water storage facilities. Support and administrative activities are located in leased space 20 and 1/2 miles from the Observatory. A major multi-year project has been completed to improve road safety and access, as well as to reduce future maintenance. Although existing structures are serviceable, some changes are required to improve efficiency. Development of a master plan is scheduled for FY 1984.

During the planning period, it is anticipated that approximately \$650,000 will be required for recurring road maintenance, design of an administration building, and construction of an aluminizing shop and the first phase of a communication network. In addition, funding is expected to be sought in FY 1986 to construct support facilities at a base camp and associated improvements at the Observatory. This project is identified in the Institution's Five-Year Prospectus FY 1985-FY 1989 and in the construction section of this budget request.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs	50	50	50	50	50
Administration Building - Design	40				
Communication Network	100				
MMT Support Building and Aluminizing Shop	<u>260</u>				
TOTALS	450	50	50	50	50

SMITHSONIAN INSTITUTION BUILDING

The Smithsonian Institution Building was constructed from 1847 to 1855. It provides 55,000 square feet of exhibition and staff space.

The major requirement for FY 1985 is continuation of the installation of smoke detection and sprinkler systems and renovation of electrical wiring systems. Also planned for this period are window repairs, facade cleaning, implementation of an energy conservation program, alterations in the basement for more efficient use of space, interior repairs and an East Garden sidewalk.

These requirements are estimated to cost \$2.72 million during this planning period.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Plaster Repairs - North Staircase		100			
Repair Windows/Facade Cleaning			260	25	230
East Garden Sidewalk		500			
Facade Stone Repairs	50				
Smoke Detection Systems	150	150	150	150	150
South Tower Egress		65			
Energy Study and Implementation		40	100		
Electrical Wiring Renovation	60	50	50	50	50
Basement Master Study Plan and Implementation		40	100	100	100
TOTALS	260	945	660	325	530

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

During the years 1940 to 1946, marine and terrestrial research facilities on Barro Colorado Island (BCI) and elsewhere in Panama were transferred by act of Congress to the Smithsonian Institution. Currently, facilities of the Tropical Research Institute are located at BCI, Galeta Point, Balboa (Ancon and Tivoli sites) and Naos Island. Some 50 structures scattered throughout 17 acres of land provide a site for tropical research. The condition of existing buildings, piers and utilities varies with each facility, and a study to determine future needs for these facilities is under way. Many of the buildings and their operating systems have deteriorated and are inadequate to meet programmatic needs.

In addition to a master plan, there are other requirements which need to be met within the planning period. These include continuation of water and sewage system installations at Galeta and BCI, installation of an emergency generator and a communications system, and construction of a petroleum storage facility. Replacement of buildings includes the design and construction of a dormitory on BCI. The cost of these requirements for the planning period is approximately \$1.77 million. In addition, it is expected that funding will be sought from FY 1986 through FY 1989 for the design and construction of a terrestrial laboratory at the Tivoli site, and for construction projects at Naos Island on the Pacific, Barro Colorado Island in the Canal and at Galeta Point on the Atlantic. These projects are identified in the Institution's Five-Year Prospectus FY 1985-FY 1989 and in the construction section of this budget request.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
General Repairs	50	50	50	50	50
Master Plan	120	100			
Emergency Generator Installation					60
Petroleum Storage Facility					25
Communication System					45
BCI - Water/Sewage Upgrade		75			
Galeta - Sewage System Upgrade					150
Galeta - Electrical System Upgrade			50		
BCI - New Dormitories - Design and Construction	<u>895</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTALS	1,065	225	100	50	330

SUITLAND FACILITY

Twenty-five metal buildings and several other structures located on 100 acres at Suitland, Maryland, provide collections storage, conservation, restoration and exhibits support space principally for the Mall museum operations of the National Air and Space Museum, National Museum of American History and National Museum of Natural History/Museum of Man. The floor area of these buildings is approximately 312,000 square feet. They were designed originally for temporary storage of materials and equipment that are not affected by environmental conditions. However, renovation of certain buildings is required to ensure that proper environmental conditions exist for collections storage and exhibit purposes. Also, asbestos insulation must be replaced and fire detection and suppression systems installed. Constant attention to maintenance and upgrading will be essential to long-term museum use of these buildings. An amount of \$3.75 million is estimated for these projects between FY 1985 and FY 1989.

(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Master Plan	200	100			
Rest Room for the Disabled			20		
NASM - Covered Storage					160
NASM - Bldg. 24 - Balcony			60		
Exterior Painting and Roof Repairs		60			
Fire Protection - MAH Buildings	160	200	250		
Standby Emergency Generator	60				
Security Fence/Road Repairs				50	
MAH Bldgs. - Improvements (Nos. 17, 19, A&B)	500	500	750		
NASM Bldg. 10 - Chemical Cleaning Addition					200
NASM Bldgs. 7, 22, & 23 - Electrical Upgrade					40
NASM Bldgs. 22 & 23 - HVAC Upgrade					100
MAH Bldgs. 16 & 18/17 & 19 - Concrete Slabs					180
Collection Management and Storage Bldg. (New)					<u>160</u>
TOTALS	920	860	1,080	50	840

MISCELLANEOUS PROJECTS

Additional Institution facility requirements include: the containment or removal of exposed asbestos insulation at a number of buildings; installation of a central proprietary security system; advance project planning and design; space modifications; bronze door restoration; security lighting improvements; emergency repairs; and a day care center.

These requirements are estimated to cost approximately \$11.3 million through FY 1989.

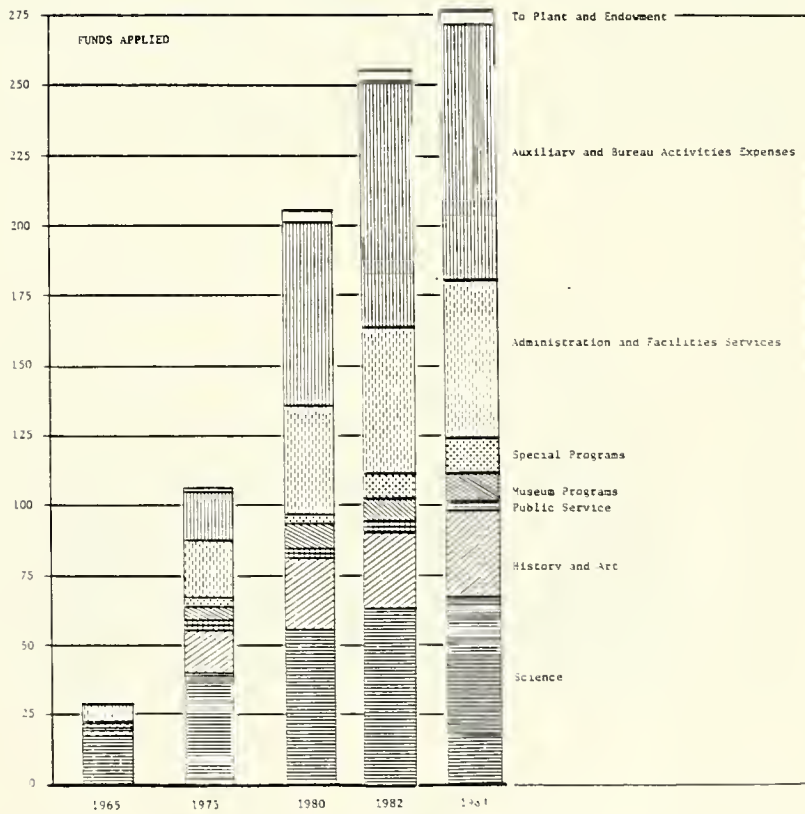
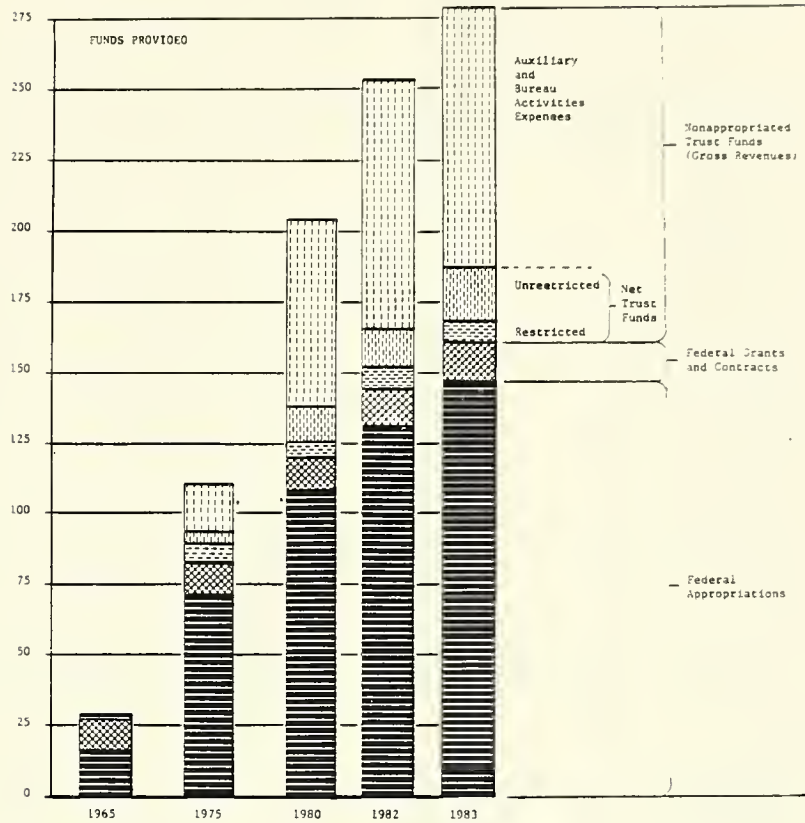
(Dollars in thousands)

<u>Work Description</u>	<u>Fiscal Year</u>				
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Emergency Repairs	100	200	200	200	200
Bronze Doors - Restoration & Maintenance		25	25	25	25
Sidewalk Repairs/Parking Lot Improvements		150	150	150	150
Signage Study - Exterior					50
Advanced Planning and Design	200	300	350	400	400
Asbestos Abatement	400	500	500	500	500
Security Lighting (Mall Bldgs.)		200	200	200	
Emergency Power Study/Design		150	400		
Day Care Center			450		
Proprietary Security System	400	400	400	400	400
Contingency Space Modifications		500	500	500	500
TOTALS	1,100	2,425	3,175	2,375	2,225

APPENDIX

SMITHSONIAN INSTITUTION OPERATING FUNDS

Fiscal Years 1965, 1975, 1980, 1982, 1983
(In \$1,000,000's)



SMITHSONIAN INSTITUTION
STATEMENT OF FINANCIAL ACTIVITY
year ended September 30, 1983
with comparative totals for the year ended September 30, 1982
(thousands of dollars)

	Trust Funds			Federal Funds			Totals, all funds	Totals, 1982		
	Total trust funds	Current funds	Endowment and similar funds	Plant funds	Total federal funds	Operating funds			Construction funds	Capital funds
Revenue and other additions:										
Appropriations	\$ -	\$ -	\$ -	\$ -	\$ 195,756	\$ 149,256	\$ 46,500	\$ -	\$ 195,756	\$ 145,234
Auxiliary activities revenue	101,957	101,957	-	-	-	-	-	-	101,957	95,593
Federal grants and contracts	13,125	13,125	-	-	-	-	-	-	13,125	13,217
Investment income (net of \$445,000 for management and custodian fees)	9,293	7,931	-	1,362	-	-	-	-	9,293	9,635
Net gain on sale of securities and real property	14,451	-	13,002	1,449	-	-	-	-	14,451	3,884
Gifts, bequests and foundation grants	21,456	7,770	45	13,641	-	-	-	-	21,456	6,205
Additions to plant	2,880	-	-	2,880	17,877	-	-	17,877	20,757	32,896
Rentals, fees, commissions and other	2,301	2,301	-	-	85	-	-	-	2,386	2,494
Total revenue and other additions	165,463	133,084	13,047	19,332	213,718	149,341	46,500	17,877	379,181	309,158
Expenditures and other deductions:										
Research and educational expenditures	26,082	26,082	-	-	95,916	95,916	-	-	121,998	111,461
Administrative expenditures	10,344	10,344	-	-	11,139	11,139	-	-	21,483	18,471
Facilities services expenditures	1,297	1,297	-	-	42,351	42,351	-	-	43,648	39,338
Auxiliary activities expenditures	85,133	85,133	-	-	-	-	-	-	85,133	85,153
Acquisition of plant	2,873	-	-	2,873	34,089	-	34,089	-	36,962	14,959
Property use and retirements	3,341	-	-	3,341	17,099	-	-	17,099	20,440	13,479
Retirement of indebtedness	7	-	-	7	-	-	-	-	7	6
Interest on indebtedness	17	-	-	17	-	-	-	-	17	18
Total expenditures and other deductions	129,094	122,856	-	6,238	200,594	149,406	34,089	17,099	329,688	282,885
Excess of revenue and other additions over (under) expenditures and other deductions	36,369	10,228	13,047	13,094	13,124	(65)	12,411	778	49,493	26,273
Transfers among funds - additions (deductions):										
Mandatory principal and interest on notes	-	(24)	-	24	-	-	-	-	-	-
Nonmandatory for designated purposes, net	-	(7,551)	5,714	1,837	-	-	-	-	-	-
Total transfers among funds	-	(7,575)	5,714	1,861	-	-	-	-	-	-
Net increase (decrease) for the year	36,369	2,653	18,761	14,955	13,124	(65)	12,411	778	49,493	26,273
Returned to U. S. Treasury	-	-	-	-	(62)	(62)	-	-	(62)	(125)
Fund balances at beginning of year	132,492	23,957	84,248	24,287	186,611	202	5,657	180,752	319,103	292,955
Fund balances at end of year	\$168,861	\$ 26,610	\$103,009	\$39,242	\$199,673	\$ 75	\$18,068	\$181,530	\$368,534	\$319,103

SMITHSONIAN INSTITUTION
SOURCE OF OPERATING FUNDS
FY 1983 PROJECTED THROUGH FY 1989

(\$000)

SOURCE OF OPERATING FUNDS	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
Federal Salaries and Expenses	147,256	156,683	170,682	194,825	201,351	211,288	223,634
. Plus cumulative effect of legislated pay raises	-	-	7,000	14,900	23,100	31,500	40,500
Subtotal	147,256	156,683	177,682	209,725	224,451	242,788	264,134
Nonappropriated Trust Funds							
<u>Unrestricted General</u>							
. Investments	2,489	2,400	2,450	2,500	2,550	2,600	2,650
. Gifts	24	50	50	50	50	50	50
. Auxiliary Activities	100,997	105,255	111,320	118,920	123,975	128,330	134,795
. Miscellaneous	46	50	50	50	50	50	50
Subtotal	103,556	107,755	113,870	121,520	126,625	131,030	137,545
<u>Unrestricted Special Purpose</u>							
. Investments	686	672	589	595	595	590	590
. Gifts	155	124	126	150	150	150	150
. Bureau Activities	3,132	3,310	3,267	3,400	3,500	3,600	3,700
. Miscellaneous	902	882	943	950	1,000	1,000	1,000
Subtotal	4,875	4,988	4,925	5,095	5,245	5,340	5,440
<u>Restricted</u>							
. Investments	2,971	3,077	3,039	3,075	3,125	3,175	3,225
. Gifts, Grants and Contracts	5,419	6,040	3,963	5,565	5,875	5,750	6,000
. Miscellaneous	772	909	967	975	1,000	1,000	1,000
Subtotal	9,162	10,026	7,969	9,615	10,000	9,925	10,225
Federal Grants and Contracts	13,125	13,574	13,016	14,359	17,773	17,438	16,535
Gross Income	277,974	293,026	317,462	360,314	384,094	406,521	433,879
Less Expenses of Auxiliary and Bureau Activities	(89,397)	(94,766)	(100,501)	(107,287)	(111,948)	(115,917)	(121,304)
Net Funds Provided	188,577	198,260	216,961	253,027	272,146	290,604	312,575

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR SCIENCE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	7	372	11	545	11	567	12	621	12	646	12	646	12	646
-PROGRAM & ADMINISTRATIVE	0	62	0	60	0	79	0	78	0	83	0	83	0	83
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	31	0	19	0	1	0	1	0	1	0	1	0	1
RESTRICTED	1	101	0	135	0	116	0	320	0	310	0	315	0	305
FEDERAL GRANTS & CONTRACTS	2	187	2	20725	2	219	2	225	2	230	2	240	2	245
-SUBTOTAL	10	753	13	968	13	982	14	1245	14	1270	14	1285	14	1280
MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	503	18148	499	18885	499	20270	505	22110	505	22763	505	22633	505	22873
-PROGRAM & ADMINISTRATIVE	0	306	0	13	0	10	0	10	0	10	0	10	0	10
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	8	0	1	0	1	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	605	0	195	0	227	0	215	0	200	0	185	0	190
-ALL OTHER	5	1362	6	2157	5	1792	5	2143	5	2165	5	1645	5	1665
RESTRICTED	5	978	18	1031	20	887	17	870	17	815	17	855	18	785
FEDERAL GRANTS & CONTRACTS	5	21407	523	22292	524	23187	527	25348	527	25953	527	25328	528	25523
-SUBTOTAL	508	21407	523	22292	524	23187	527	25348	527	25953	527	25328	528	25523
ASTROPHYSICAL OBSERVATORY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	78	6649	92	7652	92	8708	98	8251	105	8541	112	8911	120	9281
-PROGRAM & ADMINISTRATIVE	59	2268	46	2123	46	2271	46	2386	46	2511	46	2611	46	2761
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	2	139	2	133	2	143	2	170	2	180	2	190	2	200
-BUREAU ACTIVITY	0	470	0	289	0	315	0	0	0	0	0	0	0	0
-ALL OTHER	1	155	1	179	1	150	1	80	1	80	1	85	2	200
RESTRICTED	1	10896	99	11351	100	11071	86	12454	88	16073	87	15678	70	14835
FEDERAL GRANTS & CONTRACTS	100	10896	99	11351	100	11071	86	12454	88	16073	87	15678	70	14835
-SUBTOTAL	240	20577	240	21727	241	22658	233	23341	242	27385	248	27475	240	27277

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TROPICAL RESEARCH INSTITUTE														
FEDERAL SALARY & EXPENSES	86	3155	86	3367	86	3574	97	3978	102	4161	107	4353	112	4553
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	71	2	82	2	87	2	92	2	98	2	104	2	111
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	-74	0	89	0	105	0	115	0	130	0	140	0	155
-ALL OTHER	0	165	0	23	0	23	0	0	0	0	0	0	0	0
RESTRICTED	8	181	8	260	8	228	0	140	0	140	0	100	0	100
FEDERAL GRANTS & CONTRACTS	0	19	0	5	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	96	3517	96	3826	96	4017	99	4325	104	4529	109	4697	114	4919
SMITHSONIAN ENVIRONMENTAL RESEARCH CTR														
FEDERAL SALARY & EXPENSES	71	3170	67	3170	67	3439	72	3722	75	3733	77	3842	80	3964
UNRESTRICTED GENERAL	1	73	1	68	1	70	1	72	1	74	1	76	1	78
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	22	0	18	0	18	0	18	0	19	0	20	0	22
-ALL OTHER	0	111	0	96	0	102	0	107	0	106	0	110	0	113
RESTRICTED	0	39	0	18	0	9	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	4	301	3	403	2	285	4	255	0	100	0	100	0	100
-SUBTOTAL	76	3796	71	3170	70	3923	77	4174	76	4032	78	4148	81	4277
NATIONAL AIR & SPACE MUSEUM														
FEDERAL SALARY & EXPENSES	222	7104	218	7713	218	8049	228	8594	229	8894	230	9194	231	9494
UNRESTRICTED GENERAL	0	5	0	8	0	8	0	8	0	8	0	8	0	8
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	16	1311	16	1144	16	1216	16	1195	16	1232	16	1267	16	1307
-ALL OTHER	12	1097	12	1045	12	1087	12	1120	12	1153	12	1188	12	1223
RESTRICTED	1	122	1	107	1	104	1	106	1	110	1	115	1	120
FEDERAL GRANTS & CONTRACTS	1	113	1	151	1	139	1	145	1	145	1	150	1	155
-SUBTOTAL	252	9832	240	10168	248	10603	258	11168	259	11542	260	11922	261	12307

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SCIENCE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL ZOOLOGICAL PARK														
FEDERAL SALARY & EXPENSES	327	10042	325	10641	325	11074	330	11698	339	12285	347	12674	355	13416
UNRESTRICTED GENERAL	0	7	0	10	0	10	0	10	0	10	0	10	0	10
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	112	0	114	0	114	0	110	0	1115	0	1615	0	870
-ALL OTHER	0	82	0	95	0	93	0	95	0	95	0	100	0	100
RESTRICTED	3	176	3	87	3	90	3	85	3	85	3	90	3	90
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	330	10419	328	10947	328	11381	333	11998	342	13590	350	14489	358	14486
SCIENCE-SUMMARY														
FEDERAL SALARY & EXPENSES	1294	48720	1290	51973	1298	55681	1342	58974	1367	61023	1390	62253	1415	64227
UNRESTRICTED GENERAL	62	2792	49	2364	49	2535	49	2656	49	2794	49	2902	49	3061
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	18	1406	18	1385	18	1483	18	1498	18	1561	18	1617	18	1684
UNRESTRICTED SPECIAL PURPOSE	12	2591	12	1781	12	1869	12	1553	12	2575	12	3099	12	2397
-BUREAU ACTIVITY	16	2042	16	2951	15	2492	7	2884	7	2900	7	2360	8	2490
-ALL OTHER	135	12750	126	13240	128	12691	113	14034	111	17448	110	17113	94	16210
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	1537	70301	1519	73694	1520	76751	1541	81599	1564	88301	1586	89344	1596	90069
* Less SAO overhead recovery														
- Program and Administrative		2264 - 2375		- 2100		- 2260		- 2375		- 2500		- 2600		- 2750

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

HISTORY & ART	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR HISTORY & ART														
FEDERAL SALARY & EXPENSES	4	175	4	400	4	208	5	222	5	222	5	222	5	222
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	97	1	92	1	92	1	95	1	98	1	100	1	105
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	4	0	6	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	276	5	498	5	300	6	317	6	320	6	322	6	327
JOSEPH HENRY PAPERS														
FEDERAL SALARY & EXPENSES	5	199	5	212	5	221	6	256	6	256	6	256	6	256
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	200	5	213	5	222	6	257	6	257	6	257	6	257
MUSEUM OF AMERICAN HISTORY														
FEDERAL SALARY & EXPENSES	287	9530	286	9801	286	10887	306	11846	314	11968	323	12238	331	12524
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	90	1	91	1	91	1	93	1	95	1	97	1	99
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	3	0	3	0	1	0	1	0	1	0	1
-ALL OTHER	1	354	1	219	1	222	0	224	0	239	0	249	0	254
RESTRICTED	1	472	0	332	0	580	0	595	0	610	0	630	0	650
FEDERAL GRANTS & CONTRACTS	0	3	0	5	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	290	10450	288	10451	288	11783	307	12759	315	12913	324	13215	332	13528

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
MUSEUM OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	106	4186	106	4441	106	4648	122	5496	126	5687	128	5768	129	5762
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	26	0	38	0	38	0	39	0	40	0	41	0	42
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	21	0	106	0	95	0	99	0	102	0	107
-ALL OTHER	1	666	1	108	1	97	1	85	1	84	1	83	1	83
RESTRICTED	0	104	0	428	0	214	0	175	0	110	0	100	0	105
FEDERAL GRANTS & CONTRACTS	0	-2	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	107	4981	107	5036	107	5103	123	5890	127	6020	129	6094	130	6099
NATIONAL PORTRAIT GALLERY														
FEDERAL SALARY & EXPENSES	76	3085	76	3221	76	3367	81	3987	82	4146	83	4305	85	4471
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	45	0	58	0	18	0	18	0	18	0	18	0	18
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	5	0	8	0	8	0	9	0	9	0	9	0	9
-ALL OTHER	0	113	0	79	0	42	0	56	0	56	0	56	0	56
RESTRICTED	3	164	0	201	0	146	0	100	0	100	0	100	0	100
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	79	3412	76	3567	76	3581	81	4170	82	4329	83	4488	85	4654
HIRSHHORN MUSEUM & SCULPTURE GARDEN														
FEDERAL SALARY & EXPENSES	80	2705	80	2986	80	3109	82	3817	82	3977	82	3901	82	4001
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	9	0	12	0	12	0	12	0	12	0	12	0	12
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	62	0	64	0	64	0	65	0	65	0	65	0	65
RESTRICTED	0	69	0	622	0	35	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	80	2845	80	3684	80	3220	82	4094	82	4254	82	4178	82	4278

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

HISTORY & ART	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CENTER FOR ASIAN ART														
FEDERAL SALARY & EXPENSES	30	913	30	1090	30	1136	32	1311	32	1415	33	1512	34	1551
UNRESTRICTED GENERAL	1	52	1	56	1	60	1	62	1	67	1	70	1	72
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	52	0	5	0	3	0	3	0	3	0	3	0	3
-ALL OTHER	23	1319	22	1465	22	1515	22	1555	22	1570	22	1580	22	1590
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	54	2336	53	2616	53	2714	55	2931	55	3055	56	3165	57	3216
ARCHIVES OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	17	679	17	714	17	741	19	817	20	857	22	902	23	947
UNRESTRICTED GENERAL	0	1	0	4	0	4	0	4	0	4	0	4	0	4
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	1	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	12	766	16	973	17	936	19	775	20	825	21	875	24	980
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	29	1447	33	1691	34	1681	38	1596	40	1686	43	1781	47	1931
CODDPER HEWITT MUSEUM														
FEDERAL SALARY & EXPENSES	22	805	22	851	22	1092	49	1635	63	2076	63	2158	63	2283
UNRESTRICTED GENERAL	9	527	9	391	9	421	9	441	9	462	9	484	9	507
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	5	760	5	596	5	617	5	642	5	662	5	682	5	702
-BUREAU ACTIVITY	7	391	7	367	7	390	7	403	7	413	7	428	7	438
-ALL OTHER	1	549	0	492	0	319	0	310	0	320	0	330	0	340
RESTRICTED	0	48	0	75	0	75	0	75	0	75	0	75	0	75
FEDERAL GRANTS & CDNTRACTS														
-SUBTOTAL	44	3080	43	2772	43	2914	70	3506	84	4008	84	4157	84	4345

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

HISTORY & ART	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM OF AFRICAN ART														
FEDERAL SALARY & EXPENSES	25	934	25	986	25	1031	25	1199	25	1199	25	1199	25	1199
UNRESTRICTED GENERAL	0	206	0	9	0	9	0	9	0	9	0	9	0	9
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	2	0	1	0	1	0	1	0	0	0	0	0	0
-BUREAU ACTIVITY	0	886	0	9	0	9	0	9	0	5	0	5	0	5
-ALL OTHER	3	-41	3	105	1	57	1	20	1	50	1	50	1	50
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	28	1987	28	1110	26	1107	26	1238	26	1263	26	1263	26	1263
ANACOSTIA NEIGHBORHOOD MUSEUM														
FEDERAL SALARY & EXPENSES	19	700	19	828	19	863	22	1057	22	1057	22	1062	22	1062
UNRESTRICTED GENERAL	1	29	1	32	1	33	1	34	1	35	1	36	1	37
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	3	0	0	0	1	0	4	0	4	0	8	0	4
-ALL OTHER	0	2	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	20	734	20	861	20	898	23	1096	23	1097	23	1107	23	1104
HISTORY & ART-SUMMARY														
FEDERAL SALARY & EXPENSES	671	23911	670	25530	670	27303	749	31643	777	32860	792	33523	805	34278
UNRESTRICTED GENERAL	13	1082	13	783	13	778	13	807	13	840	13	871	13	905
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	5	769	5	629	5	735	5	748	5	771	5	794	5	819
-BUREAU ACTIVITY	9	2533	9	857	9	828	8	849	8	869	8	897	8	908
-ALL OTHER	43	3404	41	4620	40	3804	42	3732	43	3787	44	3867	47	4017
RESTRICTED	0	49	0	80	0	75	0	75	0	75	0	75	0	75
FEDERAL GRANTS & CONTRACTS														
-TOTAL	741	31749	738	32499	737	33523	817	37854	846	39202	862	40027	878	41002

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
ASSISTANT SECRETARY FOR PUBLIC SERVICE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	5	217	5	242	5	252	5	252	5	252	5	252	5	252
-PROGRAM & ADMINISTRATIVE	0	37	0	2	0	2	0	2	0	2	0	2	0	2
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	254	5	244	5	254	5	254	5	254	5	254	5	254
OFFICE OF TELECOMMUNICATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	5	362	5	202	5	211	5	221	5	221	5	221	5	221
-PROGRAM & ADMINISTRATIVE	6	330	6	354	6	412	8	539	8	566	8	594	8	624
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	19	0	21	0	24	0	30	0	35	0	40	0	50
-ALL OTHER	0	176	2	208	2	216	0	0	0	0	0	0	0	0
RESTRICTED	0	175	0	7	0	10	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	11	1062	13	792	13	873	13	790	13	822	13	855	13	895
VISITOR'S INFORMATION & RECEPTION CENTER														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	2	77	2	151	2	159	3	219	3	219	3	219	3	219
-PROGRAM & ADMINISTRATIVE	12	467	16	502	16	593	16	626	16	657	16	689	16	723
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	17	0	12	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	14	561	18	665	18	752	19	845	19	876	19	908	19	942

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

PUBLIC SERVICE	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SMITHSONIAN INSTITUTION PRESS														
FEDERAL SALARY & EXPENSES	30	970	30	1044	30	1085	30	1089	30	1093	30	1097	30	1101
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	32	9529	32	11207	33	10900	34	11250	35	11700	35	12100	35	12200
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	5	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	10	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	62	10514	62	12251	63	11985	64	12339	65	12793	65	13197	65	13301
PUBLIC SERVICE-SUMMARY														
FEDERAL SALARY & EXPENSES	42	1626	42	1639	42	1707	43	1781	43	1785	43	1789	43	1793
UNRESTRICTED GENERAL	18	834	22	858	22	1007	24	1167	24	1225	24	1285	24	1349
-PROGRAM & ADMINISTRATIVE	32	9529	32	11207	33	10900	34	11250	35	11700	35	12100	35	12200
-AUXILIARY ACTIVITY	0	19	0	21	0	24	0	30	0	35	0	40	0	50
UNRESTRICTED SPECIAL PURPOSE	0	193	2	220	2	215	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	180	0	7	0	10	0	0	0	0	0	0	0	0
-ALL OTHER	0	10	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	92	12391	98	13952	99	13864	101	14228	102	14745	102	15214	102	15392

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

MUSEUM PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	7	353	7	340	7	354	7	354	7	354	7	354	7	354
UNRESTRICTED GENERAL	0	4	0	18	0	5	0	5	0	5	0	5	0	5
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	50	0	1	0	1	0	1	0	1	0	1	0	1
-ALL OTHER	0	31	0	470	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	7	438	7	829	7	360	7	360	7	360	7	360	7	360
OFFICE OF MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	9	292	9	330	9	350	11	470	11	448	12	478	12	518
UNRESTRICTED GENERAL	0	1	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	26	0	51	0	42	1	54	1	59	1	59	1	64
-BUREAU ACTIVITY	0	17	0	0	0	0	0	1	0	1	0	1	0	1
-ALL OTHER	3	150	3	599	3	315	0	0	0	0	0	0	0	0
RESTRICTED	0	1	0	4	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	12	487	12	984	12	707	12	525	12	508	13	538	13	583
INTERNATIONAL ACTIVITIES														
FEDERAL SALARY & EXPENSES	5	163	5	194	5	200	5	200	5	200	5	200	5	200
UNRESTRICTED GENERAL	0	1	0	1	0	1	0	1	0	1	0	1	0	1
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	164	5	195	5	201	5	201	5	201	5	201	5	201

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

MUSEUM PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
OFFICE OF THE REGISTRAR														
FEDERAL SALARY & EXPENSES	2	87	2	95	2	99	2	99	2	99	2	99	2	99
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	2	87	2	95	2	99	2	99	2	99	2	99	2	99
CONSERVATION ANALYTICAL LABORATORY														
FEDERAL SALARY & EXPENSES	21	892	21	960	21	998	21	998	21	998	21	998	21	998
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	21	892	21	960	21	998	21	998	21	998	21	998	21	998
SMITHSONIAN INSTITUTION LIBRARIES														
FEDERAL SALARY & EXPENSES	99	3692	99	3667	99	4030	112	6771	117	7544	121	8153	124	9370
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	8	211	9	290	9	311	9	331	9	352	9	375	9	399
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	41	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	4	0	4	0	4	0	5	0	5	0	5	0	5
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	107	3948	108	3961	108	4345	121	7107	126	7901	130	8533	133	9774

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM PROGRAMS														
OFFICE OF EXHIBITS CENTRAL														
FEDERAL SALARY & EXPENSES	45	1367	45	1467	45	1521	49	1696	52	1783	54	1841	55	1870
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	-14	0	4	0	2	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	45	1353	45	1471	45	1523	49	1696	52	1783	54	1841	55	1870
TRAVELING EXHIBITION SERVICE														
FEDERAL SALARY & EXPENSES	6	313	6	295	6	310	6	467	6	467	6	467	6	467
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	19	1375	21	1354	23	1450	24	1620	26	1710	27	1800	27	1900
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	71	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	3	689	7	2035	6	1148	4	800	4	800	4	800	4	800
RESTRICTED	0	.4	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	28	2452	34	3684	35	2908	34	2887	36	2977	37	3067	37	3167
SMITHSONIAN ARCHIVES														
FEDERAL SALARY & EXPENSES	13	442	13	501	13	523	14	581	15	604	16	634	16	644
UNRESTRICTED GENERAL	2	62	5	128	5	150	2	64	2	68	2	73	2	78
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	1	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	505	18	629	18	673	16	645	17	672	18	707	18	722

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

MUSEUM PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL MUSEUM ACT														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	3	777	3	787	3	789	3	1000	3	1000	3	1000	3	1000
MUSEUM PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	210	8378	210	8636	210	9174	230	12636	239	13497	247	14224	251	15520
-PROGRAM & ADMINISTRATIVE	10	279	14	437	14	467	11	401	11	426	11	454	11	483
-AUXILIARY ACTIVITY	19	1375	21	1354	23	1450	24	1620	26	1710	27	1800	27	1900
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	26	0	51	0	42	1	54	1	59	1	59	1	64
-ALL OTHER	0	166	0	5	0	3	0	2	0	2	0	2	0	2
RESTRICTED	6	874	10	3108	9	1467	4	805	4	805	4	805	4	805
FEDERAL GRANTS & CONTRACTS	0	5	0	4	0	0	0	0	0	0	0	0	0	0
-TOTAL	245	11103	255	13595	256	12603	270	15518	281	16499	290	17344	294	18774

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SPECIAL PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
AMERICAN STUDIES & FOLK LIFE PROGRAM														
FEDERAL SALARY & EXPENSES	5	603	5	656	5	689	6	743	6	943	6	882	6	842
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	448	11	500	11	534	11	556	11	600	11	647	11	698
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	0	0	0	0	22	0	22	0	22	0	22
-ALL OTHER	0	79	0	39	0	39	0	19	0	19	0	19	0	19
RESTRICTED	0	84	0	211	0	150	0	150	0	150	0	150	0	150
FEDERAL GRANTS & CONTRACTS	0	248	0	250	0	250	0	250	0	250	0	250	0	250
-SUBTOTAL	14	1463	16	1656	16	1662	17	1740	17	1984	17	1970	17	1981
OFC OF ELEMENTARY & SECONDARY EDUCATION														
FEDERAL SALARY & EXPENSES	7	249	7	305	7	319	7	331	7	344	7	357	7	371
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	30	1	84	1	95	1	105	1	115	1	125	1	135
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	2	0	5	0	6	0	0	0	0	0	0	0	0
-ALL OTHER	0	21	0	0	0	0	0	10	0	10	0	10	0	10
RESTRICTED	0	31	0	96	0	96	2	60	2	75	2	80	2	85
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	7	333	8	490	8	516	10	506	10	544	10	572	10	601
OFFICE OF SYMPOSTA & SEMINARS														
FEDERAL SALARY & EXPENSES	3	86	3	94	3	98	3	175	3	225	3	120	3	125
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	89	1	101	1	104	1	107	1	110	1	113	1	116
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	55	0	68	0	50	0	50	0	50	0	50	0	60
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	4	233	4	263	4	252	4	332	4	385	4	283	4	301

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SPECIAL PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
OFFICE OF FELLOWSHIPS & GRANTS														
FEDERAL SALARY & EXPENSES	9	299	9	314	9	328	9	333	9	336	9	336	9	336
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	40	1	70	1	79	1	85	1	91	1	97	1	103
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	782	0	1047	0	1433	0	1698	0	1983	0	2138	0	2303
RESTRICTED	0	32	0	28	0	29	0	40	0	35	0	35	0	35
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	10	1153	10	1459	10	1869	10	2156	10	2445	10	2606	10	2777
REGENT'S FELLOWSHIPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	83	0	130	0	135	0	140	0	145	0	150	0	155
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	83	0	130	0	135	0	140	0	145	0	150	0	155
INTERNAT'L ENVIRONMENTAL SCIENCE PROGRAM														
FEDERAL SALARY & EXPENSES	2	629	2	681	2	712	2	752	2	792	2	832	2	872
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	2	629	2	681	2	712	2	752	2	792	2	832	2	872

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

SPECIAL PROGRAMS	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
COLLECTIONS MANAGEMENT/INVENTORY PROGRAM														
FEDERAL SALARY & EXPENSES				834		857		857		857		857		857
UNRESTRICTED GENERAL	0	789	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	789	0	834	0	857	0	857	0	857	0	857	0	857
CARE, FLUID RSCH., SMITHSON AWARDS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	2650	0	2675	0	2725	0	2480	0	3075	0	3075
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	0	0	2650	0	2675	0	2725	0	2480	0	3075	0	3075
MUSEUM SUPPORT CENTER EQUIP./OPERATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	36	6758	116	7993	143	13172	148	6846	151	6881	152	7081	154	6664
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	79	0	650	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	36	6837	116	8643	143	13172	148	6846	151	6881	152	7081	154	6664

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SPECIAL PROGRAMS														
MAJOR EXHIBITION PROGRAM														
FEDERAL SALARY & EXPENSES				885		0		0		0		0		0
UNRESTRICTED GENERAL		825		0		0		0		0		0		0
-PROGRAM & ADMINISTRATIVE		0		0		0		0		0		0		0
-AUXILIARY ACTIVITY		0		0		0		0		0		0		0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY		0		0		0		0		0		0		0
-ALL OTHER		0		0		0		0		0		0		0
RESTRICTED		0		0		0		0		0		0		0
FEDERAL GRANTS & CONTRACTS		0		0		0		0		0		0		0
-SUBTOTAL	0	825	0	885	0	0	0	0	0	0	0	0	0	0
QUADRANGLE OPERATING														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL		0		0		21		139		198		199		199
-PROGRAM & ADMINISTRATIVE		0		0		0		0		0		0		0
-AUXILIARY ACTIVITY		0		0		0		0		0		0		0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY		0		0		0		0		0		0		0
-ALL OTHER		0		0		0		0		0		0		0
RESTRICTED		0		0		0		13		13		13		13
FEDERAL GRANTS & CONTRACTS		0		0		0		0		0		0		0
-SUBTOTAL	0	0	0	0	21	1109	152	12715	211	10850	212	10750	212	11950
SPECIAL PROGRAMS--SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	62	11238	142	12762	190	17284	314	21187	376	19428	378	19215	380	20017
-PROGRAM & ADMINISTRATIVE	11	607	14	755	14	812	14	853	14	916	14	982	14	1052
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	3	0	5	0	6	0	22	0	22	0	22	0	22
-ALL OTHER	0	1047	0	4516	0	4282	0	4592	0	4637	0	5392	0	5562
RESTRICTED	0	202	0	403	0	325	15	1865	15	2110	15	2315	15	2330
FEDERAL GRANTS & CONTRACTS	0	248	0	250	0	250	0	250	0	250	0	250	0	250
-TOTAL	73	13345	156	18691	204	22959	343	28769	405	27363	407	28176	409	29233

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
OFFICE OF MEMBERSHIP & DEVELOPMENT														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	11	1039	12	607	12	560	12	605	12	653	12	705	12	761
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	9	0	10	0	11	0	15	0	15	0	15	0	15
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	11	1048	12	617	12	571	12	620	12	668	12	720	12	776
SMITHSONIAN MAGAZINE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	83	39885	83	41985	86	44500	88	46900	89	48500	89	49500	90	52000
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	83	39885	83	41985	86	44500	88	46900	89	48500	89	49500	90	52000
NATIONAL ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	27	9574	28	9765	29	11040	30	11775	30	12540	31	13390	31	14295
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	30	0	33	0	30	0	30	0	30	0	30
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	27	9574	28	9795	29	11073	30	11805	30	12570	31	13420	31	14325

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
RESIDENT ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	46	3130	46	3019	47	3130	50	3265	51	3410	52	3560	53	3715
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	14	0	3	0	0	0	3	0	3	0	3	0	3
-ALL OTHER	0	4	0	21	0	10	0	15	0	15	0	20	0	20
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	46	3148	46	3043	47	3140	50	3283	51	3428	52	3583	53	3738
-SUBTOTAL														
ASSOCIATES PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	11	1039	12	607	12	560	12	605	12	653	12	705	12	761
-PROGRAM & ADMINISTRATIVE	156	52589	157	54769	162	58670	168	61940	170	64450	172	66450	174	70010
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	9	0	10	0	11	0	15	0	15	0	15	0	15
-BUREAU ACTIVITY	0	14	0	33	0	33	0	33	0	33	0	33	0	33
-ALL OTHER	0	4	0	21	0	10	0	15	0	15	0	20	0	20
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	167	53655	169	55440	174	59284	180	62608	182	65166	184	67223	186	70839
-TOTAL														

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
BUSINESS MANAGEMENT OFFICE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	5	282	5	275	5	280	5	290	5	300	5	305	5	315
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	282	5	275	5	280	5	290	5	300	5	305	5	315
MUSEUM SHOPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	150	10661	150	11870	152	12760	159	14690	160	15100	160	15480	160	16020
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	150	10661	150	11870	152	12760	159	14690	160	15100	160	15480	160	16020
MAIL ORDER DIVISION														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	46	8842	46	9295	46	10100	46	10920	46	11845	46	12670	46	13560
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	46	8842	46	9295	46	10100	46	10920	46	11845	46	12670	46	13560

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
CONCESSIONS/FOOD SERVICE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	46	3018	1	3335	1	3440	1	3580	1	3720	1	3875	1	3925
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	46	3018	1	3335	1	3440	1	3580	1	3720	1	3875	1	3925
PARKING OPERATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	17	448	17	470	17	490	17	510	17	540	17	560	17	590
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	17	448	17	470	17	490	17	510	17	540	17	560	17	590
BELMONT CONFERENCE CENTER														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	344	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	344	0	0	0	0	0	0	0	0	0	0	0	0

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
BUSINESS MANAGEMENT-SUMMARY														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	264	23595	219	25245	221	27070	228	29990	229	31505	229	32890	229	34410
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	264	23595	219	25245	221	27070	228	29990	229	31505	229	32890	229	34410

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CENTRAL MANAGEMENT OFFICES														
CENTRAL MANAGEMENT OFFICES--SUMMARY														
FEDERAL SALARY & EXPENSES	41	1825	40	1888	40	1966	41	2084	41	2052	42	2088	42	2094
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	24	1588	24	1710	24	2070	24	2251	24	2487	24	2582	24	2720
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	314	0	124	0	31	0	30	0	29	0	23	0	23
RESTRICTED	0	80	0	63	0	53	0	62	0	62	0	62	0	62
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	65	3807	64	3785	64	4120	65	4427	65	4630	66	4755	66	4899
SPECIALIZED ADMIN & TECH OFFICES--SUMMARY														
FEDERAL SALARY & EXPENSES	228	9145	225	9855	225	10285	236	11219	237	11369	238	11320	239	11276
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	139	5242	130	5151	139	5552	139	5939	139	6336	139	6759	139	7211
-AUXILIARY ACTIVITY	2	77	2	90	3	110	3	120	3	120	3	130	3	130
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	2	0	1	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	369	14466	365	15097	367	15949	378	17278	379	17825	380	18209	381	18617
FACILITIES OFFICES--SUMMARY														
FEDERAL SALARY & EXPENSES	1003	42351	1052	44400	1052	47469	1127	50761	1144	50970	1163	53782	1179	55621
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	13	1264	12	1369	12	1479	12	1596	12	1723	12	1860	12	2008
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	1	3	1	20	1	25	1	22	1	22	1	22	1	22
RESTRICTED	0	35	0	1	0	1	0	1	0	3	0	3	0	3
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1017	43653	1065	45790	1065	48974	1140	52380	1157	52718	1176	55667	1192	57654

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 AND PROJECTED THROUGH FY 1989

	FY 1983		FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ADMIN, FIN'L & OTHER SUPPORT SVCS														
ADMIN, FIN'L & OTHER SUPPORT SVCS--SUMMARY														
FEDERAL SALARY & EXPENSES	1272	53321	1317	56143	1317	59720	1404	64064	1422	64391	1443	67190	1460	68991
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	176	8094	174	8230	175	9101	175	9786	175	10546	175	11201	175	11939
-AUXILIARY ACTIVITY	2	77	2	90	3	110	3	120	3	120	3	130	3	130
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	1	317	1	144	1	58	1	52	1	51	1	45	1	45
RESTRICTED	0	117	0	65	0	54	0	63	0	65	0	65	0	65
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1451	61926	1494	64672	1496	69043	1583	74085	1601	75173	1622	78631	1639	81170
*Less SI overhead recovery														
- Program and Administrative		-6331		-6350		-6500		-6800		-7200		-7500		-7900

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1983 PROJECTED THROUGH FY 1989

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
<u>Adjustments for Inflation, Pay Requirements, and Grade Reductions</u>							
•Federal Salaries and Expenses	-	-	-	1,800	3,800	6,000	8,300
-Necessary Pay	-	-	-	3,300	5,500	8,400	12,000
-Inflation	-	-	(187)	(560)	(933)	(1,306)	(1,492)
-Grade Reductions	-	-	7,000	14,900	23,100	31,500	40,500
-Supplemental	-	-	-	-	-	-	-
Subtotal	-	-	6,813	19,440	31,467	44,594	59,308
<u>Institutional Total</u>	147,194	156,683	177,682	209,725	224,451	242,788	264,134
•Federal Salaries and Expenses	6,132	5,584	6,500	7,100	7,700	8,300	8,900
•Unrestricted General	87,165	92,665	98,200	104,920	109,485	113,370	118,650
-Program and Administrative	2,232	2,101	2,301	2,367	2,463	2,547	2,654
-Auxiliary Activities	6,861	7,556	7,289	7,081	8,167	9,468	8,947
•Unrestricted Special Purpose	6,823	11,175	8,162	9,364	9,682	9,432	9,727
-Bureau Activities	13,062	13,574	13,016	14,359	17,773	17,438	16,535
-All Other	269,469	289,338	313,150	354,916	379,721	403,343	429,547
•Restricted	(89,397)	(94,766)	(100,501)	(107,287)	(111,948)	(115,917)	(121,304)
•Federal Grants and Contracts							
Gross Funds Applied	269,469	289,338	313,150	354,916	379,721	403,343	429,547
Less Expenses of Auxiliary and Bureau Activities	(89,397)	(94,766)	(100,501)	(107,287)	(111,948)	(115,917)	(121,304)
<u>Net Funds Applied Before Transfers</u>	147,194	156,683	177,682	209,725	224,451	242,788	264,134
•Federal Salaries and Expenses	6,132	5,584	6,500	7,100	7,700	8,300	8,900
•Unrestricted General	6,861	7,556	7,289	7,081	8,167	9,468	8,947
•Unrestricted Special Purpose	6,823	11,175	8,162	9,364	9,682	9,432	9,727
•Restricted	13,062	13,574	13,016	14,359	17,773	17,438	16,535
•Federal Grants and Contracts	180,072	194,572	212,649	247,629	267,773	287,426	308,243
Net Before Transfers	180,072	194,572	212,649	247,629	267,773	287,426	308,243

APPLICATION OF OPERATING FUNDS
FY 1983 PROJECTED THROUGH FY 1989

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
<u>Transfers: Out/(In)</u>	62	-	-	-	-	-	-
.Federal Salaries and Expenses*							
.Current Funds Transfers (Internal)							
-Unrestricted General	5,205	4,285	4,720	5,125	5,250	6,090	6,340
-Unrestricted Special Purpose	(5,205)	(4,285)	(4,720)	(5,125)	(5,250)	(6,090)	(6,340)
.Current Funds to Plant Improvement							
-Unrestricted General	2,005	2,700	500	500	500	500	500
-Unrestricted Special Purpose	64	25	25	-	-	-	-
.Current Funds to Endowment							
-Unrestricted General	3,021	2,521	3,021	3,021	3,021	3,021	3,021
-Unrestricted Special Purpose	63	-	-	-	-	-	-
-Restricted	637	132	138	144	150	155	160
Total Transfers	5,852	5,378	3,684	3,665	3,671	3,676	3,681
<u>Net Changes in Fund Balance:</u>							
Increase (Decrease)	28	-	929	854	669	(251)	134
.Unrestricted General	860	(409)	30	772	(135)	(585)	179
.Unrestricted Special Purpose	1,702	(1,281)	(331)	107	168	338	338
.Restricted	63	-	-	-	-	-	-
.Federal Grants and Contracts							
Subtotal	2,653	(1,690)	628	1,733	702	(498)	651
<u>Net Funds Applied</u>							
.Federal Salaries and Expenses	147,256	156,683	177,682	209,725	224,451	242,788	264,134
.Unrestricted General	16,391	15,090	15,670	16,600	17,140	17,660	18,895
.Unrestricted Special Purpose	2,643	2,887	2,624	2,728	2,782	2,793	2,786
.Restricted	9,162	10,026	7,969	9,615	10,000	9,925	10,225
.Federal Grants and Contracts	13,125	13,574	13,016	14,359	17,773	17,438	16,535
Net Funds Applied	188,577	198,260	216,961	253,027	272,146	290,604	312,575
*Unobligated funds returned to Treasury.							

(\$000s)

SMITHSONIAN INSTITUTION
UNRESTRICTED GENERAL TRUST FUNDS
FINANCIAL SUMMARY
FY 1983 - 1989

NET INCOME:	FISCAL YEAR						
	Actual 1983	Budget 1984	E S T I M A T E S				
			1985	1986	1987	1988	1989
Investment	2,489	2,400	2,450	2,500	2,550	2,600	2,650
Gifts & Miscellaneous	70	100	100	100	100	100	100
	<u>2,559</u>	<u>2,500</u>	<u>2,550</u>	<u>2,600</u>	<u>2,650</u>	<u>2,700</u>	<u>2,750</u>
<u>Activities</u>							
Magazine	9,597	8,200	8,200	8,500	8,500	8,500	9,000
National Associate	614	700	920	1,140	1,370	1,610	1,930
Resident Associate /1	(347)	(250)	(205)	(175)	(150)	(120)	(90)
	<u>9,864</u>	<u>8,650</u>	<u>8,915</u>	<u>9,465</u>	<u>9,720</u>	<u>9,990</u>	<u>10,840</u>
<u>Business Management</u>							
Business Mgmt. Office	(282)	(170)	(175)	(180)	(190)	(195)	(205)
Museum Shops	936	750	800	850	900	950	1,000
Mail Order	1,774	1,200	1,200	1,200	1,200	1,200	1,200
Concessions	922	890	950	1,000	1,060	1,115	1,300
Food Service Division/2	139	500	560	580	610	640	670
Parking	609	750	800	970	980	1,000	1,030
Belmont	(18)	--	--	--	--	--	--
	<u>4,080</u>	<u>3,920</u>	<u>4,135</u>	<u>4,420</u>	<u>4,560</u>	<u>4,710</u>	<u>4,995</u>
<u>Other</u>							
SI Press/1	232	255	260	275	360	400	450
Photo Sales	19	--	10	10	10	10	10
Traveling Exhibition	(363)	(235)	(200)	(170)	(160)	(150)	(150)
	<u>(112)</u>	<u>20</u>	<u>70</u>	<u>115</u>	<u>210</u>	<u>260</u>	<u>310</u>
<u>TOTAL NET INCOME</u>	<u>16,391</u>	<u>15,090</u>	<u>15,670</u>	<u>16,600</u>	<u>17,140</u>	<u>17,660</u>	<u>18,895</u>
<u>EXPENDITURES</u>							
Administration SI	9333 9,334	9,150	9,800	10,500	11,200	11,900	12,700
Administration SAO	2564 2,263	2,100	2,260	2,375	2,500	2,600	2,750
Less: Recovery SI	(6,331) (6,444)	(6,350)	(6,500)	(6,800)	(7,200)	(7,500)	(7,900)
Recovery SAO	(2,264) (2,151)	(2,100)	(2,260)	(2,375)	(2,500)	(2,600)	(2,750)
	<u>3,002</u>	<u>2,800</u>	<u>3,300</u>	<u>3,700</u>	<u>4,000</u>	<u>4,400</u>	<u>4,800</u>
Program Allotments	3,130	2,784	3,200	3,400	3,700	3,900	4,100
General Fund Transfers	4,718	3,835	4,245	4,620	4,720	5,530	5,755
Revenue Sharing	486	450	475	505	530	560	585
	<u>11,336</u>	<u>9,869</u>	<u>11,220</u>	<u>12,225</u>	<u>12,950</u>	<u>14,390</u>	<u>15,240</u>
<u>TOTAL EXPENDITURES</u>	<u>11,336</u>	<u>9,869</u>	<u>11,220</u>	<u>12,225</u>	<u>12,950</u>	<u>14,390</u>	<u>15,240</u>
<u>NET GAIN</u>	<u>5,055</u>	<u>5,221</u>	<u>4,450</u>	<u>4,375</u>	<u>4,190</u>	<u>3,270</u>	<u>3,655</u>
Plant Transfers	2,005	2,700	500	500	500	500	500
Endowment Transfers	3,022	2,521	3,021	3,021	3,021	3,021	3,021
<u>ADDITION TO FUND BALANCE</u>	<u>28</u>	<u>-0-</u>	<u>929</u>	<u>854</u>	<u>669</u>	<u>(251)</u>	<u>134</u>

/1 Reflects the transfer of the Division of Performing Arts concert, jazz and Discovery Theater to the Resident Associate Program; and the recording program to the SI Press in FY 1983.

/2 Does not reflect the conversion of Food Services to concessionaire operations in FY 1984.

(S000)

SMITHSONIAN INSTITUTION
UNRESTRICTED GENERAL TRUST FUNDS
AUXILIARY ACTIVITIES - INCOME AND EXPENSES

Income = Gross Income Net of
Return and Allowances

FY 1983 - 1989

Expenses = Cost of Goods Sold
Plus Operating
Expenses and Admin. Fee

	FISCAL YEAR						
	Actual 1983	Budget 1984	E S T I M A T E S				
			1985	1986	1987	1988	1989
Magazine.....Income	49,482	50,185	52,700	55,400	57,000	58,000	61,000
Expense	39,885	41,985	44,500	46,900	48,500	49,500	52,000
Net	9,597	8,200	8,200	8,500	8,500	8,500	9,000
Nat'l. Associate.....Income	10,188	10,465	11,960	12,915	13,910	15,000	16,225
Expense	9,574	9,765	11,040	11,775	12,540	13,390	14,295
Net	614	700	920	1,140	1,370	1,610	1,930
Resident Associate...Income	2,783	2,769	2,925	3,090	3,260	3,440	3,625
Expense	3,130	3,019	3,130	3,265	3,410	3,560	3,715
Net	(347)	(250)	(205)	(175)	(150)	(120)	(90)
Bus. Mgt. Office.....Income	--	105	105	110	110	110	110
Expense	282	275	280	290	300	305	315
Net	(282)	(170)	(175)	(180)	(190)	(195)	(205)
Museum Shops.....Income	11,597	12,620	13,560	15,540	16,000	16,430	17,020
Expense	10,661	11,870	12,760	14,690	15,100	15,480	16,020
Net	936	750	800	850	900	950	1,000
Mail Order.....Income	10,616	10,495	11,300	12,120	13,045	13,870	14,760
Expense	8,842	9,295	10,100	10,920	11,845	12,670	13,560
Net	1,774	1,200	1,200	1,200	1,200	1,200	1,200
Concessions.....Income	953	1,095	1,150	1,210	1,270	1,330	1,395
Expense	31	205	200	210	210	215	95
Net	922	890	950	1,000	1,060	1,115	1,300
Food Services Div.....Income	3,126	3,630	3,800	3,950	4,120	4,300	4,500
Expense	2,987	3,130	3,240	3,370	3,510	3,660	3,830
Net	139	500	560	580	610	640	670
Parking.....Income	1,057	1,220	1,290	1,480	1,520	1,560	1,620
Expense	448	470	490	510	540	560	590
Net	609	750	800	970	980	1,000	1,030
SI Press.....Income	9,761	11,461	11,160	11,525	12,060	12,500	12,650
Expense	9,529	11,206	10,900	11,250	11,700	12,100	12,200
Net	232	255	260	275	360	400	450
Photo Sales.....Income	96	90	120	130	130	140	140
Expense	77	90	110	120	120	130	130
Net	19	--	10	10	10	10	10
SITES.....Income	1,012	1,119	1,250	1,450	1,550	1,650	1,750
Expense	1,375	1,354	1,450	1,620	1,710	1,800	1,900
Net	(363)	(235)	(200)	(170)	(160)	(150)	(150)



SMITHSONIAN INSTITUTION LIBRARIES



3 9088 01683 3048