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Fiscal Year 1977

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PART 2—Justifications

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**SMITHSONIAN INSTITUTION
BUDGET JUSTIFICATIONS, 1977**

(711)

SMITHSONIAN INSTITUTION

FISCAL YEAR 1977 ESTIMATES OF APPROPRIATIONSGENERAL STATEMENTOrganization and Performance

Founded in 1846, the Smithsonian Institution is an independent establishment devoted to public education, basic research, and national service in the arts, sciences, and history. Centered on the Mall in Washington, D.C., it also operates major facilities and activities elsewhere in Washington, across the country, and overseas.

One of the world's leading research centers, the Smithsonian is also the world's largest museum complex, attracting, with the Zoo, approximately 20 million visitors yearly as well as an additional 6.4 million who view traveling exhibits in the States. As custodian of the National Collections, it possesses more than 70 million objects and specimens. These collections are used for displays for the enjoyment and education of our visitors and are available for research by Smithsonian staff and many 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.

The Smithsonian complex consists of eleven exhibition buildings in Washington, D.C., and New York City in the fields of science, history, technology, and art; a zoological park and an animal conservation and research center near Front Royal, Virginia; a preservation and storage facility at Silver Hill, Maryland; a conference center at Elkridge, Maryland; two natural preserves, in Panama and on the Chesapeake Bay; the Anacostia Neighborhood Museum which operates in a low-income area of the city in cooperation with the community; an oceanographic sorting center in Washington and a privately-funded oceanographic research facility in Fort Pierce, Florida; astrophysical stations in Cambridge, Massachusetts, Mt. Hopkins, Arizona, and elsewhere; and supporting administrative, laboratory, and storage areas.

A wide range of programs is conducted in cooperation with other institutions, universities, and government agencies here in the United States and on every continent. Many of the research projects performed in nations abroad are funded through the use of excess foreign currencies. Through the preparation of research monographs, exhibit catalogues, education pamphlets, information leaflets, and other publications, research results are disseminated to a wide audience. Other education activities include radio, television, motion picture programs, the successful magazine, Smithsonian, which now has more than one million subscribers, and the Archives of American Art Journal.

Management Planning and Organizational Effectiveness

For the past three years, the Smithsonian has held a series of internal management conferences to review current programs and activities and to identify selective areas where resource growth could best serve the Institution.

To assist in these periodic reviews, information on each organization unit's use of its current personnel and financial resources is gathered and studied. For this purpose, Institutional work is categorized as either program-related (e.g., exhibits, education, research) or support-related (e.g., libraries, automatic data processing, conservation). The reviews, which will be continued on an annual basis, have provided a more complete understanding of the actual application of base resources, whether they are adequate or deficient. They have reduced the possibility of redundant or overlapping efforts and have focussed management attention on broad Institutional objectives, as well as those of each specific bureau or office.

Priorities established for FY 1977 include: augmentation of acquisition funds to establish more fully representative collections, particularly in the area of art; expansion of research training to enable additional predoctoral and postdoctoral scholars from around the nation to study the collections and perform other research at the Institution; support of important ongoing research programs and new initiatives, particularly those of an inter-bureau and interdisciplinary nature; and continuation of phased development of support services including the annualization of protection and custodial positions (e.g., the National Air and Space Museum and the Cooper-Hewitt Museum) for which only partial-year funding was requested and provided in FY 1976. In the area of capital development, major emphasis in the years ahead will be directed toward development of museum support facilities to meet remedial and projected space and program needs, continuation of major construction and renovation at the National Zoological Park in accordance with the Master Plan, and performance of essential repairs and improvements to the Institution's other buildings and facilities.

Along with this evaluation of current activities and needed growth patterns, the Institution has examined ways of becoming more self-reliant and has taken steps to develop and apply non-appropriated funds to selected areas of activity. Evidence of progress in this area over the past year or so is reflected in the acquisition and use of gifts and other sources of non-appropriated funds for the renovation of the Carnegie Mansion (to house the Cooper-Hewitt Museum), for the construction of a public restaurant and classroom facilities in the West Courtyard of the Museum of Natural History, and for the production and installation of a major exhibit on American banking in the Museum of History and Technology. Institution and museum managers are encouraged with the results to date of the self-help efforts and look forward to additional benefits.

For FY 1977 the Institution is requesting the following appropriations:

	1976 Appropriations	1976 Supplemental	Requested 1977 Increase	1977 Estimates
Salaries and Expenses	\$77,832,000	\$3,541,000/1	\$3,727,000	\$85,100,000
Science Information Exchange	1,875,000	69,000	-44,000	1,900,000
Special Foreign Currency Program	500,000	--	3,981,000	4,481,000
Construction and Improvements, National Zoological Park	8,390,000	--	-1,590,000	6,800,000
Restoration and Renovation of Buildings	1,192,000	--	2,108,000	3,300,000
Construction: NASM (appropriation to liqui- date contract authority)	2,500,000	--	-2,500,000	--
Museum Support Facility Planning	--	--	500,000	500,000
Totals	\$92,289,000	\$3,610,000	\$6,182,000	\$102,081,000

/1 This amount is \$65,000 lower than the amount reflected in the President's Budget as a result of more recent information on utility rates.

Highlights of the budget request are as follows:

A. Salaries and Expenses

<u>1975 Appropriation</u>	<u>1976 Estimate</u>	<u>1977 Estimate</u>
\$70,706,000	\$81,373,000	\$85,100,000

This appropriation provides for the regular operating programs in the museums, galleries, zoological park, research laboratories, and other program units; for special programs of an Institution-wide nature (such as the American Revolution Bicentennial program); and for program support activities. This funding is allocated by major groups as follows: (Organizational allocation appears on pages A-2 and A-3.)

	<u>1976</u> <u>Base</u>	<u>Requested</u> <u>Increase</u>	<u>1977</u> <u>Estimate</u>
Science	\$30,370,000	\$2,352,000	\$32,722,000
History and Art	12,583,000	972,000	13,555,000
Public Service	2,288,000	207,000	2,495,000
Museum Programs	5,763,000	502,000	6,265,000
Special Programs	5,959,000	-3,703,000	2,256,000
Administrative and Support Activities	<u>24,410,000</u>	<u>3,397,000</u>	<u>27,807,000</u>
Totals	\$81,373,000	\$3,727,000	\$85,100,000

Major purposes to be served by the requested funding increase include:

1. Program Increases (Other than Bicentennial-Related): \$4,151,000

- Research - to support ongoing and important new programs in such areas as tropical biology, solar energy, regulatory and environmental biology, ecosystem and land-use research, zoology, and anthropology. Moreover, the requested increase will be used to continue and maintain the Inventory of American Paintings, accelerate development of an oral history of jazz, and allow expansion of the Research Awards Program. (\$695,000)
- Collections Acquisition - to maintain a minimum acquisition program with knowledgeable and adequate curatorial support to supplement continued and active efforts to acquire gifts to the National Collections. Purchase funds are essential to acquire particular objects to establish fully representative reference collections or to display in new exhibitions. (\$246,000)
- Collections Management - to determine the most efficient and scientifically sound methods of collections management, to provide additional assistance for the receipt, accessioning, documentation, and care of the collections, and to develop and maintain programs of animal care and propagation for the living collections at the Zoo. (\$207,000)
- Exhibition - to support the small but important exhibit program of the Anacostia Neighborhood Museum. This increase is offset by a reduction in the level of funding requested for the Major Exhibition Program. (-\$197,000)
- Education and Public Orientation - to provide improved orientation and other information services for museum visitors and the general public and to strengthen research training, seminar, and other education activities. (\$262,000)
- Other Services - to enable additional grants to be awarded under the National Museum Act, thus extending the benefits of this program to a larger number of museum personnel. (\$37,000)
- Conservation - to establish a capability for proper conservation of the textile collections located at the Cooper-Hewitt Museum. (\$18,000)
- Libraries - to permit the acquisition and efficient processing of library materials in order to serve increasing research and exhibit efforts. (\$150,000)

- Automatic Data Processing - to reduce backlogs in the application of computer technology in the scientific research, collections management, and administrative areas and to give the professional research staff and others an interactive computer processing capability. (\$76,000)
- Printing and Reproduction - to provide additional management support, thereby enabling more economic and efficient handling of current publication requirements as well as planning for the orderly implementation of future needs. (\$17,000)
- Protection - to provide adequate protection and security for the buildings and other facilities, exhibits, collections, and visitors and to annualize the funding of positions for the National Air and Space Museum and Cooper-Hewitt for which only partial-year funding was requested and provided in FY 1976. (\$767,000)
- Buildings and Facilities Management - to fund custodial, maintenance and horticultural requirements throughout the Institution; to complete staffing for the National Air and Space Museum and to annualize the funding of new NASM positions for which only partial-year funding was requested and provided in FY 1976; to cover increased rental costs and costs resulting from higher utility consumption associated with the opening of new facilities; and to improve the capability for facilities planning and costing of construction projects. (\$1,663,000)
- General Administration - to provide assistance in accounting, personnel, supply, procurement, and property administration, and, in addition, to fund positions to be designated specifically for Upward Mobility Programs throughout the Institution (\$210,000)

2. Program Decrease (Bicentennial): -\$3,867,000

- To phase out the major portion of support for Smithsonian Bicentennial programs. Retention of \$417,000 will permit orderly completion and close-down of activities such as the Bibliography of American Art and the Festival of American Folklife.

3. Uncontrollable Increases: \$3,443,000

- Necessary Pay and Related Benefits - to meet the projected higher cost of current employees caused by legislated pay raises, within-grade step increases, special benefits for Canal Zone employees, higher costs of health benefits, and annualizing of costs of FY 1976 employees for whom Congress provided only partial-year funding. (\$2,408,000)
- Utility Rate Increases - to assist in funding rate increases on heating steam, gas, oil, and electricity. (\$864,000)
- Postage Rate Increases - to fund the costs of recent postal rate increases. (\$79,000)
- Telephone Rate Increases - to fund higher costs of the Federal Telecommunication System (FTS) resulting from the proration of the costs of recent system improvements to all FTS customers. (\$92,000)

B. Science Information Exchange (SIE)

<u>1975 Appropriation</u>	<u>1976 Appropriation</u>	<u>1977 Estimate</u>
\$1,805,000	\$1,944,000	\$1,900,000

The Science Information Exchange acquires, processes, stores, and provides information on research projects in progress as a service to the research community. The FY 1977 appro-

priation reflects a slight reduction in funding from the previous year. In order to fulfill requirements for input processing and to meet continuing increases in operating costs caused by inflation, the SIE will be studying the possibility of increasing its user fees, reducing input processing costs, and avoiding increases in processing backlogs.

C. Special Foreign Currency Program

<u>1975 Appropriation</u>	<u>1976 Appropriation</u>	<u>1977 Estimate</u>
\$2,000,000	\$500,000	\$4,481,000

This appropriation will allow the Smithsonian to continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. Research will be performed in the following general areas of Smithsonian Institution interest and competence: archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs. In addition, funds are included for the third of four annual payments, each of \$1,000,000 equivalent in "excess" Egyptian pounds, for the campaign to save the monuments of Nubia located on the Island of Philae.

D. Facilities Planning, Renovation, Restoration, and Construction

<u>1975 Appropriation</u>	<u>1976 Appropriation</u>	<u>1977 Estimate</u>
\$17,910,000	\$12,082,000	\$10,600,000

--Construction and Improvements, National Zoological Park (\$6,800,000) - The FY 1977 appropriation will sustain progress on the implementation of the approved Master Plan for the improvement of the Zoo's animal and public facilities and essential repairs and additions to existing facilities. Work to be undertaken in the budget year includes the completion of Beaver Valley exhibits (beavers, otters, seals and sea lions, some bears, and wolves); the design and installation of graphics; and a continued phased program of repairs, renovations, and other improvements of Zoo facilities in Rock Creek Valley and at the Front Royal, Virginia, conservation center.

--Restoration and Renovation of Buildings (\$3,300,000) - The appropriation sought for FY 1977 emphasizes renovation of the Arts and Industries Building; road and water system improvements at the Mt. Hopkins, Arizona, Observatory; fire detection and control systems; repairs to the Renwick Gallery exterior and the History and Technology Building terrace; installation of building equipment monitoring systems; improvements for handicapped persons; and general repairs and improvements for building preservation and safety purposes.

--Construction (\$500,000) - Funds requested in FY 1977 will be used to begin the design and specifications for the first increment of construction of a Museum Support Facility.

SMITHSONIAN INSTITUTIONSALARIES AND EXPENSESSummary of Increase FY 1977

Appropriation, FY 1976	\$77,832,000
Proposed Pay Supplemental	2,606,000
Proposed Program Supplemental (Utility and postage rate increases)	<u>935,000/1</u>
Base, FY 1976	\$81,373,000
FY 1977 Request	<u>85,100,000</u>
Requested Increase	\$3,727,000

Transition Quarter

Appropriation	\$21,740,000
Proposed Pay Supplemental	<u>928,000</u>
Total	\$22,668,000

/1 Down by \$65,000 from the amount included in the President's Budget because of more recent information on rates.

SMITHSONIAN INSTITUTION
"Salaries and Expenses"
Summary of the 1975 Appropriation and the 1976 and 1977 Estimates

(Dollars in thousands)

Page No.	Unit	1975 Actual		1976 Estimate		1977 Estimate		Analysis of Increase		
		Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Uncontrol- Table	Program
	Science									
A-11	Assistant Secretary for Science	7	299	7	210	8	218	7	224	-
A-12	National Museum of Natural History	466	9,660	473	10,037	366	10,403	482	10,849	9
A-15	Astrophysical Observatory	64	3,401	69	3,530	100	3,630	77	3,994	8
A-19	Tropical Research Institute	60	1,205	61	1,242	54	1,296	63	1,447	2
A-22	Radiation Biology Laboratory	48	1,542	48	1,631	79	1,710	48	1,853	-
A-24	Office of International Programs	20	419	16	337	14	351	16	364	-
A-25	Chesapeake Bay Center	18	443	20	510	24	534	23	645	3
A-27	National Air and Space Museum	165	3,947	230	5,477	172	5,649	230	6,244	-
A-31	Center for the Study of Man	11	337	12	356	16	372	12	407	-
A-34	National Zoological Park	294	5,429	301	5,825	382	6,207	305	6,695	4
	Subtotal Science	1,153	26,682	1,237	29,155	1,215	30,370	1,263	32,722	26
	History and Art									
A-38	Asst. Secretary for History & Art	11	256	11	267	13	280	11	304	-
A-40	Museum of History and Technology	259	4,992	262	5,276	208	5,484	265	5,772	3
A-42	National Collection of Fine Arts	100	2,046	104	2,258	72	2,330	106	2,520	2
A-45	National Portrait Gallery	71	1,499	74	1,674	52	1,726	75	1,876	1
A-49	Hirshhorn Museum & Sculpture Garden	83	1,541	83	1,624	52	1,676	83	1,844	-
A-51	Freer Gallery of Art	27	380	28	458	19	477	29	511	1
A-53	Archives of American Art	12	279	15	322	12	334	16	369	1
A-55	Cooper-Hewitt Museum	11	209	15	253	23	276	19	359	4
	Subtotal History and Art	574	11,202	592	12,132	451	12,583	604	13,555	12
	Public Service									
A-57	Asst. Secretary for Public Service	10	192	8	184	7	191	8	205	-
A-59	Anacostia Neighborhood Museum	19	403	21	457	22	479	21	557	-
A-61	International Exchange Service	9	194	9	212	5	217	9	219	-
A-62	Division of Performing Arts	10	482	11	402	9	411	11	447	-
A-64	Office of Public Affairs	15	344	16	335	12	347	16	388	-
A-66	Smithsonian Institution Press	27	586	27	621	22	643	28	679	1
	Subtotal Public Service	90	2,201	92	2,211	77	2,288	93	2,495	1

Page No.	Unit	1975 Actual		1976 Estimate		1977 Estimate		Analysis of Increase				
		Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Uncontrol- lable Program			
	Museum Programs											
A-68	Ass't Secretary for Museum Programs	63	714	63	979	31	1,010	63	1,176	-	41	125
A-71	Office of the Registrar	16	221	16	211	9	220	16	227	-	7	-
A-72	Conservation-Analytical Laboratory	21	534	23	606	13	619	23	638	-	19	-
A-73	Smithsonian Institution Libraries	86	1,564	90	1,750	54	1,804	95	2,026	5	72	150
A-76	Office of Exhibits Central	50	936	50	1,006	40	1,046	50	1,080	-	34	-
A-77	Traveling Exhibition Service	6	105	6	96	3	99	6	102	-	3	-
A-79	Smithsonian Archives	10	180	11	189	7	196	12	209	1	6	7
A-81	National Museum Act	3	802	3	767	2	769	3	807	-	1	37
	Subtotal Museum Programs	255	5,056	262	5,604	159	5,763	268	6,265	-	133	319
	Special Programs											
A-84	American Rev Bicentennial Program	2	5,855	2	4,258	26	4,284	2	417	-	-	-3,867
A-91	Internat'l Environmental Science	2	176	2	323	5	328	2	376	-	5	43
A-93	Major Exhibition Program	-	38	-	260	-	260	-	50	-	9	-210
A-95	Academic and Educational Programs	11	620	11	629	8	637	12	813	1	9	167
A-98	Research Awards Program	-	450	-	450	-	450	-	600	-	1	150
	Subtotal Special Programs	15	5,139	15	5,920	39	5,959	16	2,256	-	14	-3,717
	Administrative & Support Activities											
A-99	Office of the Secretary	29	800	29	779	28	807	29	830	-	23	-
A-100	Office of the General Counsel	11	314	11	317	13	330	11	345	-	15	-
A-101	Office of the Treasurer	34	711	36	841	25	866	36	885	-	19	-
A-103	Office of Personnel Administration	33	630	34	684	28	712	36	786	2	18	56
A-105	Office of Audits	7	182	7	197	8	205	7	213	-	8	-
A-106	Office of Equal Opportunity	5	125	6	142	6	148	11	203	5	5	50
A-108	Printing and Photographic Services	59	812	39	859	28	867	59	882	-	15	-
A-109	Office of Computer Services	23	414	23	476	26	502	25	594	2	16	76
A-112	Office of Supply Services	25	448	26	468	15	483	27	523	1	15	25
A-114	Management Analysis Office	10	201	10	222	9	231	10	236	-	5	-
A-115	Office of Protection Services	443	5,329	527	6,383	262	6,645	559	7,606	32	224	737
A-118	Facilities Planning & Eng Services	24	602	24	590	22	612	26	676	2	29	35
A-120	Office of Plant Services	280	9,838	319	10,872	1,150	12,002	353	14,028	34	1,163	863
	Subtotal Admin & Support Act	963	20,426	1,091	22,810	1,600	24,410	1,169	27,807	78	1,555	1,842
	Total	3,050	70,706	3,289	77,852	3,541	81,373	3,413	85,100	124	3,443	234

SMITHSONIAN INSTITUTION
FY 1977 UNCONTROLLABLE INCREASES

Additional funds are sought to finance costs that are beyond the Institution's control. These increases result from legislated pay raises, prevailing practices of wage setting, changes in utility, postage, and communication rates, higher health benefits costs, and other factors. A total of \$3,443,000 is required for the following increased costs.

Necessary Pay and Related Benefits.....	\$2,408,000
Utility Rate Increases.....	864,000
Postage Rate Increases.....	79,000
Telephone Rate Increases.....	92,000
	\$3,443,000

NECESSARY PAY AND RELATED BENEFITS - An amount of \$2,408,000 is required for personnel compensation and personnel benefits for the projected higher costs in FY 1977 of FY 1976 staff. These increases result from: within-grade step increases, special benefits for Canal Zone employees, legislated pay raises, annualizing funding for FY 1976 employees, and higher costs of health benefits. Costs are calculated on a position-by-position analysis taking into consideration approved new hires in the current year and savings from turnover and filling of vacancies at lower grades where possible. Absorption of these costs from currently available funds seriously hurts approved program activity. First, for every \$12,000 that goes to these costs from funds already in salaries and benefits, one man-year of approved employment is lost. Second, if other object class funds must be applied to these costs, otherwise productive employees are left without the supplies, tools, and equipment they need to do their jobs well. As noted later in this justification, inflation already is taking a heavy toll on the purchasing power of program support funds. These additional costs are attributed to the following externally-imposed factors.

(1) **Within-Grade Step Increases** - Necessary pay funding of \$1,105,000 is required in FY 1977 for General Schedule and Wage within-grade and periodic step increases. For General Schedule employees, such increases are required by P.L. 88-426, the Government Employees Salary Reform Act of 1964. This law also provides for employees performing at outstanding levels to be recognized by a "quality step." An average of 150 are granted each year. Wage employees are covered by law and prevailing practice. Such increases must be granted if employees are performing at acceptable levels of competence. In any one fiscal year the costs of within-grade increases are substantial, resulting from the annualized cost of periodics granted in the previous fiscal year and the part-year costs of new such actions in the budget year. FY 1977 also will include the annualized costs of within-grades effected in the Transition Quarter.

The General Schedule portion of this request amounts to \$870,000. There are over 2,400 General Schedule positions with 1,829 scheduled to receive a new within-grade in FY 1977. The Wage portion of this request amounts to \$235,000. There are over 800 Wage positions with 520 scheduled to receive new within-grade increases.

(2) **Special Benefits for Overseas Employees** - An amount of \$15,000 is requested to finance the additional costs of special benefits received by Smithsonian employees in Panama. The employees of the Smithsonian Tropical Research Institute (STRI) are eligible for a variety of benefits because of their location outside the United States. United States citizens employed by STRI receive a 15 percent tropical differential and Overseas Tour Renewal Leave. All employees are eligible to send their children to Canal Zone schools and to receive free medical care. The costs of operating the school system, through two years of college, and busing costs are pro-rated back to the agencies. The costs of the hospitals and the other medical facilities are similarly pro-rated. These additional costs in FY 1977 are estimated at \$15,000.

(3) Annualization of Legislated Pay Raises - Funds in the amount of \$933,000 are requested to annualize the General Schedule and Wage pay increases effected in fiscal year 1976.

The General Schedule portion of this request amounts to \$595,000. General Schedule employees receive a salary adjustment every October. This results from E.O. 11811, issued pursuant to P.L. 91-656. The total cost of this raise (based on the October 1975 five percent increase) is estimated to be \$2,129,000. A supplemental appropriation in the amount of \$1,534,000 is sought in FY 1976. The balance of \$595,000 requested here is for the full-year costs in FY 1977.

The Wage portion of this request amounts to \$338,000. Prevailing practices call for Wage pay scales to be reviewed by a Wage Finding Authority in each geographic area. In the Washington area this has resulted in Wage employees receiving a pay raise in October each year. Smithsonian Wage employees in Panama, Virginia, and elsewhere receive similar wage hikes at other times. The Washington area personnel received a pay raise in excess of 10 percent in October, 1975. Raises in other geographic areas have been estimated on the same basis. Total cost of these raises is estimated to be \$980,000. A supplemental of \$642,000 is sought for the FY 1976 costs of these raises with the balance of \$338,000 sought in FY 1977 to provide full-year funding.

The distribution of the requested FY 1976 pay and benefits supplemental appropriation by organization unit is shown on pages A-2 and A-3. Certain of these units also are requesting utility and communication supplemental funds.

(4) Annualizing New FY 1976 Positions in FY 1977 - An amount of \$400,000 is requested to annualize new FY 1976 positions in FY 1977. In approving the Smithsonian Institution's appropriation for Salaries and Expenses for FY 1976 the Congress imposed a reduction of \$400,000 on new positions. This reduction was based on the fact that almost half of the fiscal year had already passed before newly-requested positions were authorized. Therefore, the balance of funding is requested to annualize these positions in FY 1977.

(5) Health Benefits - An amount of \$115,000 is requested to finance the additional costs of the Government's share of health benefits. The Government's contribution to the employees' health benefits payments is 60 percent of the total. On January 5, 1976, the health insurance carriers used by the United States Civil Service Commission were allowed to increase their rates by 21 percent. The portion of these insurance premiums paid by the Smithsonian will increase proportionately. In calendar year 1973 the Institution contributed \$523,000 toward Federal employees' health benefits. In calendar year 1975 the Institution contributed approximately \$789,000, and in 1976 it will be over \$900,000. Funds in the amount of \$115,000 are sought in the supplemental request for FY 1976 to finance costs in that fiscal year of the January 5, 1976 rate increase to the carriers. Funds requested here are to finance the full-year costs in FY 1977.

(6) Reduction for One Less Working Day - An amount of \$160,000 has been used to offset the above increases. FY 1977 has 261 paid work days, one less than in FY 1976.

UTILITY RATE INCREASES - An FY 1976 supplemental appropriation of \$720,000 has been requested to fund rate increases on heating steam, gas, oil, and electricity since the FY 1976 budget was formulated and submitted. Of this total amount, \$571,000 are for the operations of the Office of Plant Services, which serves museum and support buildings on and off the Mall, and \$149,000 are for the operations of field activities. Full details on the requested supplemental appropriation are contained in its justification separately submitted to Congress.

For FY 1977 a further \$864,000 are projected to be required based on the same level of consumption as in FY 1976 but significantly higher rates.¹ The tables on

¹ For simplicity's sake, this presentation assumes that general energy conservation measures will offset substantially the costs of possible additional consumption resulting from weather changes or other factors. Financial needs associated with new spaces are shown under the headings of the Radiation Biology Laboratory, National Zoological Park, and Office of Plant Services.

page A-9, present the estimated financial requirements for the Office of Plant Services which represent \$715,000 of the \$864,000. The balance of \$149,000 is associated with the needs of the National Zoological Park, Radiation Biology Laboratory, Astrophysical Observatory, Chesapeake Bay Center, Cooper-Hewitt Museum, Anacostia Museum, and the Tropical Research Institute which fund their own utilities and are experiencing similar higher rates on services and fuel supplies.

The development of these estimates drew upon past usage data, historical weather patterns, and best available information from the utility companies on expected rates. Substantial uncertainty does exist, however, in this area of budgeting. Utility rates (and related surcharges) may change with little notice (occasionally retroactively). The weather may be warmer or colder during heating and airconditioning seasons. Changes to scheduled availability of new public facilities may affect consumption estimates. Actual costs will be carefully monitored. Should this requested funding not be fully required, the balance will be returned to the Treasury.

Utility consumption conservation efforts continue in all our activities. Lighting levels have been reduced in work spaces and, wherever possible, in public areas. Heating and airconditioning levels have been reduced and raised respectively except in certain collection areas where changes would damage objects and specimens. Fans and other heavy consumers of electricity have been shut down during non-public hours. Major airconditioning systems are phased into operation to keep the peak demand rates to a minimum. As an additional major measure, the success of the low-cost computerized electrical power management system in the History and Technology Building has led to its current or planned installation in other buildings on the Mall. These systems reduce electrical power demands by selectively shutting down equipment before its operation can incur peak demand rates. For example, the power management system installed in the History and Technology Building reduced electrical use by 1.4 million KWH during the last five months of FY 1975 at an estimated savings of \$45,000. Larger savings are expected in FY 1976 and FY 1977. The results of these self-help measures have been taken into consideration in the FY 1977 projection.

POSTAGE RATE INCREASES - The FY 1976 supplemental appropriation request contains \$83,000 for one-half year costs attributable to the December 1975 postage rate increases of about 30 percent. With this appropriation, about \$561,000 will be in the base for this essential service used to respond to public inquiries, distribute publications and other educational materials, and conduct the Institution's official business. Non-appropriated funds are used for other Smithsonian activities, such as the mailing of the Smithsonian magazine.

Continuous reviews, samplings, and tight controls are placed on mail services and use. These include restrictions on air mail service, consolidations of mailings, and use of proper mail classes. Yet interest in the Smithsonian continues to grow as evidenced by frequent newspaper coverage of events and a large number of public inquiries seeking information on research, exhibition, education, and other activities or asking for objects to be identified by the curatorial staff. This public interaction is sure to rise during the Bicentennial celebration period. There will be no easing of control measures.

For FY 1977, an amount of \$79,000 is required to provide full-year funding for the recent postal rate increases based upon the estimated annual mailing volume for each class of mail.

TELEPHONE RATE INCREASES - The requested FY 1976 supplemental appropriation contains an amount of \$132,000 for higher telephone service costs in the current year resulting from rate and associated price increases granted to the Chesapeake and Potomac Telephone Company in April 1975 (after the formulation of the FY 1976 budget). Information from the General Services Administration is that the Federal Telecommunication System (FTS) costs will be increasing in FY 1977 mainly due to improvements made in the service by

GSA. These improvements include such things as increased number of lines and modernization of equipment. The costs of these improvements are passed on to FTS customers on a pro-rata basis determined by calling volume. Based on GSA's estimate of Smithsonian calling volume over the FTS and their estimate of FY 1977 costs, an additional \$92,000 are sought in the FY 1977 budget.

ABSORPTIONS - The Smithsonian is seeking full funding for the cost increases enumerated in this request. Base funding for essential utilities and communications must be brought up to meet costs. Good planning for and execution of program activities demand that these uncontrollable expenses be financed in an orderly way.

We continue to absorb heavy inflation in other essential areas of Smithsonian operations. Information from the Bureau of Labor Statistics indicates that the Consumer Price Index rose almost eight percent from September 1974 to September 1975. Further increase can be expected.

The following examples of routine, but important, recurring types of expenses are provided to show representative experience.

Animal food--Costs of feeding a reasonably stable animal population have increased from \$169,000 in FY 1973 to an estimated \$245,000 in FY 1976.

Natural history collection storage cases--About 600 cases of varying sizes are purchased in the average year. In FY 1972, the price of these cases averaged \$145.00 for a total cost of \$87,000. Recently the price jumped to \$148,000 or \$247.00 average per case (a 70 percent increase).

Buildings maintenance and custodial supplies--Price inflation on commonly-used supplies and materials for building repair and maintenance and for custodial supplies (including restroom) has averaged 30 percent over the past year. The Consumer Price Index is predicting an even higher percent increase in these items for the next year. Other items, such as copper wire, have increased in price by as much as 150 percent.

Printing of research reports and catalogues--Over 100 scholarly monographs, scientific reports, exhibits catalogues, and informational brochures are issued by the Smithsonian each year. Printing costs have gone up about 15 percent over the past 12 months (on top of a 12 percent increase the previous 12 months).

Analysis of Utilities Costs
for FY 1977 Appropriation
Office of Plant Services

Historical Experience

Fiscal Year	Heating Steam			Electricity		
	Use Millions of lbs	Unit Cost/1 Average \$ per 1000 lbs	Cost \$1,000s	Use Millions of KWH	Unit Cost/2 Average \$ per KWH	Cost \$1,000s
1973	247.4	2.61	646	56.5	0.016*	912
1974	219.6	2.96	650	53.3	0.022*	1,183
1975	217.3	5.06	1,099	54.6	0.030	1,620
1976 Est. (including new NASM)	235.0	5.37	1,266	69.0	0.038	2,611

Conclusion: Controlled consumption (with provision for new facilities)--Uncontrollable rates--Much higher costs

FY 1977 Estimate

Estimated Totals for FY 1977	Heating Steam			Electricity		
	Use Millions of lbs	Unit Cost/1 Average \$ per 1000 lbs	Cost \$1,000s	Use Millions of KWH	Unit Cost/2 Average \$ per KWH	Cost \$1,000s
Totals of FY 1974 Rates Here Still in Effect	235	6.93	1,628	69 ³	0.043 ⁴	2,967
Costs Associated with Rate Increases Since FY 1976 Budget Formulated		3.25 ⁵	764	69	0.022	1,518
		3.68	864		0.021	1,449

Calculation of FY 1977 Appropriation Request

(\$1,000s)

Estimated Total Costs:	
Steam	\$1,628
Electricity	2,967
Gas (Analysis not shown since small amount)	44
	\$4,639
Funds Available:	
FY 1974 Base (Actual Costs in FY 1974)	\$1,833
FY 1975 Supplemental (OPLANTS share of \$300)	363
FY 1976 Uncontrollable appropriation	538
FY 1976 NASM appropriation	619
FY 1976 Supplemental requested	571
	\$3,924

DEFICIT AND REQUESTED APPROPRIATION

\$715

¹ Average rate shown weighted to reflect varying levels of steam consumption at rates then in effect. The chronology of rate increases has been: September 1973, \$2.69; January 1974, \$3.25; July 1974 (announced November 1974 retroactive), \$4.61; February 1975, \$5.75; July 1975, \$5.25; projected January 1976, \$5.50; FY 1977, \$6.93.

² Average charge including basic rates, demand charges, and fuel adjustment charges (which increased from a total of \$2,000 in FY 1973 to \$181,000 in FY 1974 to \$586,000 in FY 1975 despite lower consumption than FY 1973).

³ Estimate has taken into consideration the installation of electrical power management equipment in Mall buildings.

⁴ Based on December 1975 higher rates and expected further such increases.

⁵ Rate in effect at time FY 1976 budget was formulated. Rate increases not announced until November 1974 and February 1975 (see Note 1).

Necessary Pay
FY 1977
(Dollars in Thousands)

Unit	Within Grades	Annualizations			Health Benefits	Extra Day	Total
		Raises GS	Wage	New FY76 Positions			
Assistant Secretary for Science.....	4	3				-1	6
National Museum of Natural History.....	175	114	10	15	18	-28	304
Smithsonian Astrophysical Observatory....	18	26	10	50	2	-6	100
Smithsonian Tropical Research Institute..	36*	10	7	5	2	-3	57
Radiation Biology Laboratory.....	23	8	7		2	-3	37
Office of International Programs.....	9	4			1	-1	13
Chesapeake Bay Center.....	17	7	1	3	1	-1	28
National Air and Space Museum.....	53	47	12	59	6	-6	171
Center for the Study of Man.....	4	6				-1	9
National Zoological Park.....	80	29	115	52	11	-14	273
Assistant Secretary for History and Art..	3	5				-1	7
National Museum of History & Technology..	114	55	18	30	10	-12	215
National Collection of Fine Arts.....	44	20	4	12	3	-4	79
National Portrait Gallery.....	38	15	3	12	3	-2	69
Hirshhorn Museum and Sculpture Garden....	51	12	5		3	-3	68
Freer Gallery of Art.....	9	4	2		1	-1	15
Archives of American Art.....	9	3				-1	11
Cooper-Hewitt Museum.....	3	2	7			-1	11
Assistant Secretary for Public Service...	2	2				-1	3
Anacostia Neighborhood Museum.....	5	4		12	1	-1	21
International Exchange Service.....	1	1	1			-1	2
Division of Performing Arts.....	8	3				-1	10
Office of Public Affairs.....	8	4			1	-1	12
Smithsonian Institution Press.....	11	8			1	-1	19
Assistant Secretary for Museum Programs..	29	6	6		2	-2	41
Office of the Registrar.....	4	3			1	-1	7
Conservation-Analytical Laboratory.....	15	4			1	-1	19
Smithsonian Institution Libraries.....	39	17		17	3	-4	72
Office of Exhibits Central.....	21	13	1		2	-3	34
Smithsonian Traveling Exhibition Service.	3	1				-1	3
Smithsonian Archives.....	5	2				-1	6
National Museum Act.....	1	1				-1	1
Internat'l Environmental Science Program.	3	1	1				5
Academic and Educational Programs.....	7	2					9
Office of the Secretary.....	13	10			3	-3	23
Office of the General Counsel.....	10	5			1	-1	15
Office of the Treasurer.....	11	8			1	-1	19
Office of Personnel Administration.....	9	10			1	-2	18
Office of Audits.....	5	3			1	-1	8
Office of Equal Opportunity.....	3	2			1	-1	5
Office of Printing and Photo Services....	6	6	4		1	-2	15
Office of Computer Services.....	7	9			1	-1	16
Office of Supply Services.....	10	5			1	-1	15
Management Analysis Office.....	3	3				-1	5
Office of Protection Services.....	80	71	2	73	17	-19	224
Facilities Planning and Eng Services....	22	8			1	-2	29
Office of Plant Services.....	89	13	122	60	11	-16	279
Total	1,120	595	338	400	115	-160	2,408

* Includes \$15 for Special Benefits for Overseas Employees.

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

1975 Actual.....\$299,000
 1976 Estimate.....\$218,000
 1977 Estimate.....\$224,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>7</u>	<u>0</u>	<u>7</u>
11 Personnel Compensation.....	160	5	165
12 Personnel Benefits.....	16	1	17
21 Travel & Trans. of Persons...	10		10
22 Transportation of Things.....	2		2
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction....	5		5
25 Other Services.....	14		14
26 Supplies and Materials.....	6		6
31 Equipment.....	<u>2</u>		<u>2</u>
TOTAL	<u>218</u>	<u>6</u>	<u>224</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		6	
Program Funds.....		0	

ABSTRACT - This office is responsible for overall planning, coordinating, and reviewing the progress of the 13 science bureaus and programs within the Institution. No program fund increase is sought for FY 1977. Necessary pay in the amount of \$6,000 is required for existing staff.

PROGRAM - The Office of the Assistant Secretary for Science advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian science programs. The bureaus reporting to the Assistant Secretary for Science are the National Museum of Natural History, the Radiation Biology Laboratory, the Tropical Research Institute, the National Zoological Park, the National Air and Space Museum, the Astrophysical Observatory, the Office of International Programs, the Chesapeake Bay Center for Environmental Studies, the Center for the Study of Man, the Science Information Exchange, and the Fort Pierce Bureau. This office is also responsible for the administration of the Research Awards Program and the International Environmental Science Program.

The International Environmental Program which was shown under this heading in the PY 1976 Budget is shown under the International Environmental Science Program this year.

NATIONAL MUSEUM OF NATURAL HISTORY

1975 Actual.....\$ 9,660,000
 1976 Estimate.....\$10,403,000
 1977 Estimate.....\$10,849,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	473	9	482
11 Personnel Compensation.....	8,040	378	8,418
12 Personnel Benefits.....	724	34	758
21 Travel & Trans. of Persons...	125	1	126
22 Transportation of Things.....	20	1	21
23 Rent, Comm. & Utilities.....	26		26
24 Printing and Reproduction....	202		202
25 Other Services.....	692	2	694
26 Supplies and Materials.....	203	24	227
31 Equipment.....	371	6	377
TOTAL	10,403	446	10,849
<u>Analysis of Increase</u>			
Necessary Pay.....		304	
Program Funds.....		142	

ABSTRACT - The National Museum of Natural History (NMNH) serves as a center for the natural sciences. It maintains large reference collections and conducts programs of identification and documentation, research, collections management, exhibits, and education--including collaborative projects with universities and other institutions of learning. An increase of 9 positions and \$142,000 is requested for FY 1977 to meet the following requirements: (1) Research--3 positions and \$42,000 to continue the development and updating of data regarding endangered and threatened plant species and 1 position and \$25,000 to continue and expand research in the highly significant area of coral reef habitats; and (2) Buildings Management--5 maintenance employees and \$75,000 to improve the cleanliness and care of the physical plant and related facilities. An additional amount of \$304,000 is sought for necessary pay for existing staff.

PROGRAM - This Museum serves as a national and international center for the natural sciences. It maintains the largest reference collections in the Nation (over 60 million objects) and has the legal responsibility (20 U.S.C. 59) to serve as the ultimate Federal repository of all collections and objects of natural history, archeology, and ethnology made by agencies of the government when no longer needed by those agencies for investigations in progress. Additionally, the NMNH is the repository for numerous extremely valuable collections obtained from other sources, such as the scientific community and academic institutions as well as many private individuals.

The scientists at the Museum conduct a broad program of basic research on man, plants, animals, fossil organisms, rocks, minerals, sediments, and materials from outer space. Their fundamental studies in systematics and biology are providing new information required for the solution of major problems of conservation, pollution, food production, improvement of medical knowledge, and for planning national and international programs leading to predictive ecology and environmental management. The scientific and technical results which flow from this research are made available to others by an active and large publications program.

The Oceanographic Sorting Center in Washington, D.C., assigned to the NMNH in FY 1975, prepares and distributes animal and plant materials to scientists from 200 agencies around the world who are concerned with marine pollution, ocean dumping, pollution monitoring, environmental prediction, and systematics studies. Also, the Scientific Event Alert Network (SEAN), which became a part of NMNH in FY 1976, is responsible for providing timely notice of short-lived natural scientific phenomena and events, such as volcano activity and meteorite falls, to scientists and other concerned professionals within and outside of the Smithsonian.

Over three and one half million people visit the Museum per year including many thousands of school children attracted by the exhibits. A major program of exhibit improvement was begun in FY 1974 with the creation of two new exhibits: "Ice Age Mammals and the Emergence of Man" and the very successful "Discovery Room"--an area in which visitors may handle exhibits and specimens. During the past six months, two major new exhibits were completed and opened to the public: the Museum's Bicentennial exhibit entitled "Our Changing Land" which depicts changes wrought by man and nature over the last 10,000 years in the Washington, D.C. area and an exhibit on South America entitled "A Continent and Its Culture" which deals with the cultures and environments of that continent.

As part of its education program, the Museum provides assistance for elementary and secondary school groups. In addition, many members of the scientific staff participate in joint educational programs with universities by teaching courses, training graduate students, and conducting science seminars. The Museum also provides leadership in the improvement of museum techniques and collections management, especially through the application of computer technology. The cafeteria, museum shop, and classroom facilities now under construction in the Museum's West Courtyard with non-appropriated funds will provide major new public service opportunities.

JUSTIFICATION OF \$142,000 INCREASE (Research and Buildings Management):

Endangered Flora Project - The "Report on Endangered and Threatened Plant Species of the United States" was presented by the Smithsonian Institution to Congress in January, 1975, in compliance with the Endangered Species Act of 1973. The report has provided information needed by the Department of Interior to establish follow-up regulatory procedures to control the exploitation of endangered and threatened plant species. The report has also awakened public awareness of endangered plants, and demand for the report has exhausted the supply. Follow-up activities recommended in the report include updating and improving the national endangered plant lists, continued mapping of ranges for all plants that have been named or listed in the report to determine the location of endangered plant species, continuation of work on endangered plants of Puerto Rico, and initiation of work on the Trust Territory of the Pacific Islands. Further recommendations include sharing computerized data with other institutions and supervising exchanges of information with the Department of the Interior. Funds are requested to support the staff needed to proceed with the priority objectives of the Endangered Flora Project outlined above. The Smithsonian will continue to contribute the efforts of scientists in NMNH's department of botany as needed. The sum of \$42,000 requested for the Endangered Flora Project will be used to employ a museum specialist and two technicians.

Study of Endangered Coral Reef Habitats - Coral reefs fringe the continents and islands in the warmer seas and support a wealth of valuable plantlife and animal life which are vital sources of food, and especially of protein, in many areas of the world. The direct activities of man and the by-products that result from his expanding search for raw materials and the industrialization of hitherto undeveloped areas pose grave potential dangers to the delicate reef environment. The NMNH proposes to undertake a study of the

systematics and ecology of corals and related animals which inhabit the reef environment in order to provide badly needed basic information. The President's National Council on Marine Resources and Engineering Development (1970) spoke to the kind of fundamental research planned in this proposal in the following way: "Basic scientific information enables us to define the ecological base from which we operate; to understand natural forces at work; to predict harmful and beneficial consequences of man's activities on the environment. From this comprehension we can employ better engineering and technology to maintain water quality, control beach erosion, and create modern ports and harbors."

The requested sum of \$25,000 will be used to employ a marine zoologist (\$20,000) and to provide for related support (\$5,000). This specialist will undertake research into the biology, ecology, and taxonomic relationships of the coral organism and will also be responsible for the care and curation of the Museum's large and important coral collection. In the immediate future he will participate in a study on the coral reef environment in the Caribbean which was begun in 1974. This Caribbean study involves several scientists from the Museum's staff as well as scientists from other natural history and scientific institutions. The knowledge and input of a coral specialist would contribute significantly to this multidisciplinary effort to determine the effects of man's activities on the reef environment.

Buildings Management - Not only is the Natural History Building the largest in the Smithsonian complex, but it is also one of the oldest buildings and the second most frequently visited. Visitor attendance in 1975 showed an increase of more than half a million over 1974, and the trend undoubtedly will continue upward in the Bicentennial year and beyond. This heavy visitation, the volume and space to be cared for, the age of much of the electrical wiring, plumbing and other fixtures and services in the building make it most difficult to maintain. A study determined that the custodial force should include a minimum of 78 positions to provide adequate service for public and employee use of the building. Present staffing of 58 represents only 74 percent of the required number. The requested increase of \$75,000 will be used to employ five new employees (\$46,000) including a plumber for performing minor maintenance and upkeep, and to purchase custodial and plumbing supplies and equipment (\$29,000).

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

1975 Actual.....\$3,401,000
 1976 Estimate.....\$3,630,000
 1977 Estimate.....\$3,994,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>69</u>	<u>8</u>	<u>77</u>
11 Personnel Compensation.....	1,843	266	2,109
12 Personnel Benefits.....	166	24	190
21 Travel & Trans. of Persons...	77		77
22 Transportation of Things.....	21		21
23 Rent, Comm. & Utilities.....	202	14	216
24 Printing and Reproduction....	28		28
25 Other Services.....	1,072	26	1,098
26 Supplies and Materials.....	92	17	109
31 Equipment.....	129	17	146
TOTAL	<u>3,630</u>	<u>364</u>	<u>3,994</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		100	
Other Uncontrollable.....		14	
Program Funds.....		250	

ABSTRACT - The Smithsonian Astrophysical Observatory (SAO), established in 1890, has as its primary goal to increase and diffuse knowledge about the Earth and the Universe as related to astrophysics. To accomplish this, SAO conducts a broad program of research in 8 closely interrelated scientific areas: theoretical astrophysics, high-energy astrophysics, solar and stellar physics, geoastronomy, optical and infrared astronomy, radio astronomy, atomic and molecular physics, and planetary sciences. Essential to the conduct of these research programs are the gathering of data utilizing both ground-based and space-borne instruments and the reduction and analysis of data as well as the formulation of mathematical models of astrophysical systems, all of which rely heavily on the use of computers. For these purposes, SAO maintains a multi-purpose observing facility at Mt. Hopkins in Arizona and a number of small observing stations around the world, participates in NASA-sponsored scientific space-borne experiments, and operates a relatively large computer at its headquarters in Cambridge, Massachusetts.

In FY 1977, 8 additional positions and increased funding of \$250,000 are requested for the following: (1) Research--An amount of \$50,000 (for a term appointment of a senior theoretical astrophysicist, computer time, and other support) to develop a new program of solar research with emphasis on Sun-Earth relationships, and funds in the amount of \$50,000 for increased support of laboratory experimentation and the development of detectors and scientific instruments; and (2) General Administration and Support Services -- to correct inadequacies in the areas of property management, procurement, payroll administration, personnel administration, clerical support, and general engineering and data analysis support, 8 positions and \$150,000. Further amounts of \$100,000 for necessary pay and \$14,000 for utility rate increases are also sought in the Uncontrollable Section (page A-5).

PROGRAM - Since 1890, when it was founded by Samuel Pierpont Langley, the Smithsonian Astrophysical Observatory has pursued a broad program of astrophysical research, often in support of national goals. Beginning with its pioneer investigations of the relationship between solar energy and the terrestrial environment, which are still being

continued, the SAO has remained in the forefront of modern astronomy with today's research designed to seek and reveal the basic processes in cosmic evolution. Critical to the understanding of the basic processes in cosmic evolution is the solution of two broad scientific problems: one is concerned with evolution of matter, starting with the explosive beginnings of the Universe some 20 billion years ago; and the other is concerned with cosmic matter that has cooled to the point that molecules and solid particles form. By studying the evolution of stars and galaxies and by studying the Earth, the solar system, and cool matter in space, one can expect to solve these two problems and ultimately understand the basic processes in cosmic evolution which affect all aspects of human life from genetics to energy production.

The various but closely interrelated research fronts in which SAO is seeking an understanding of the basic processes of cosmic evolution are:

1. Theoretical Astrophysics--construction of model stellar atmospheres; investigation of massive and high-density stars; cosmology; studies of galactic evolution; and physics of interstellar matter.
2. High-Energy Astrophysics--observations of high-energy sources emitting x-rays and/or gamma-rays.
3. Solar and Stellar Physics--observational and theoretical studies of solar and stellar processes; and studies of solar evolution.
4. Geoastrometry--studies of the Earth's kinematics; geodesy and geophysics; and celestial mechanisms.
5. Optical and Infrared Astronomy--observations of infrared sources; stellar and planetary observations; and studies of stellar evolution.
6. Radio Astronomy--observation of celestial radio sources; laboratory and observational studies of interstellar molecules; and investigations of chemical constituents in the interstellar medium.
7. Atomic and Molecular Physics--laboratory astrophysics, shock tube and ultraviolet vacuum spectroscopy; and atomic and particle physics.
8. Planetary Sciences--studies of the structure and composition of planetary atmospheres; studies of asteroids, meteorites, cosmic dust, comets, and meteors; studies of lunar and other extraterrestrial materials; and studies pertaining to the evolution of the solar system.

Data for these investigations is obtained from laboratory experiments, ground-based observations, and space-borne observations and experiments. Laboratory experiments are conducted at SAO's Cambridge facilities; ground-based observations are carried out primarily at SAO's Mt. Hopkins Observatory in Arizona and networks of small astrophysical observing stations, as well as at other major observatories located in the United States and other countries; and space-borne observations and experiments are made possible through NASA's space science programs which are planned and defined with participation by SAO's scientific staff and other research institutions. Data acquired by all these methods together provide the basis for the formulation of mathematical models of astrophysical systems and processes, all of which rely heavily on the use of SAO's computer facility. Together, the investigations and mathematical modelling will lead to an understanding of the basic processes in cosmic evolution.

JUSTIFICATION OF \$250,000 INCREASE (Research and General Administration and Support Services):

Solar and Stellar Physics - SAO is creating an expanded program of solar research to apply experimental and theoretical techniques toward solving outstanding problems concerning the Sun and the Sun-Earth environment. The program is named after Samuel P. Langley and Charles G. Abbot, the fifth Secretary of the Smithsonian Institution, who dedicated his life to solar-terrestrial research, through his extensive studies of solar radiation and its effect on the Earth. So far, this work, supported largely by NASA and culminating in the flight of a Harvard-designed spectrograph aboard the Skylab mission, has provided exciting new data, whose interpretation may resolve long-standing questions about the Sun as a star, the Sun as a laboratory for physical processes that cannot be duplicated on Earth, and the Sun as it interacts with the terrestrial environment. However, to analyze these data to the fullest and to move from data analysis to deep theoretical understanding require the participation of outstanding theorists who can apply advanced concepts from plasma physics and who can relate the observations to similar phenomena observed in the laboratory and elsewhere in the Universe. Funding of \$50,000 is required to support a term appointment of a senior theoretical astrophysicist and fund computer time, supplies, and laboratory equipment.

Atomic and Molecular Physics - SAO's strength in atomic and molecular physics will be significantly enhanced with the development and construction of the spectroscopic light source. A small amount of funds has been allocated by SAO out of its base research funds but progress has been too slow. An additional \$15,000 are needed for the development and construction of this equipment which will complement a number of other research programs.

Optical and Infrared Astronomy - In support of its major efforts in the optical and infrared astronomy program, SAO requests \$15,000 of additional funds to acquire equipment to develop high resolution, high sensitivity, two-dimensional detectors to be used in SAO's optical and infrared observational programs.

Radio Astronomy - New and exciting discoveries are being made in the 300 to 3,000 GHz region (millimeter and submillimeter wavelengths) of the electromagnetic spectrum. Therefore, \$20,000 are being requested to develop the necessary instrumentation to explore more fully this scientifically promising region.

General Administration and Support Services - In FY 1975, the first step was taken to correct the imbalance that has developed over the past several years between SAO's Federally-funded and grant- and contract-funded general administrative and support activities. To date, about \$175,000 has been approved for this purpose. This represents approximately 44 percent of the total of about \$400,000 that is needed to correct the imbalance and thus provide proportionate administrative and support personnel for Federally-funded research programs. As a further step toward solving this problem, eight positions and \$150,000 are requested in FY 1977. Trained and capable administrative and support personnel, now supported by grant and contract funding, will be hired to fill these positions. These positions include: five positions and \$71,000 for General Administration for a property administrator, procurement agent, payroll clerk, personnel assistant, and a secretary; and three positions and \$79,000 for Support Services for a mechanical engineer and two mathematicians.

SAO Research Highlights and Other Developments in FY 1976

A few of the highlights of SAO research and other developments are:

- Flight of a rocket probe experiment to test the equivalence principle of Einstein's Theory of Relativity
- Flight of a spacecraft-to-spacecraft doppler tracking experiment aboard the Apollo-Soyuz space mission to study small-scale structures in the earth's gravitational field.

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- Preparation of the x-ray experiments designed to fly aboard the High-Energy Astronomy Observatory satellite series.
- Participation by SAO's Geoastronomy Division in NASA's Earth and Ocean Applications Program.
- Launch by NASA of the SAO-conceived LAGEOS satellite for studies related to the Earth and Ocean Applications Programs.
- Completion of the data acquisition phase from several field stations in support of study of meteors.
- Begin construction of the multimirror telescope shelter atop Mt. Hopkins, Arizona.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

1975 Actual.....\$1,205,000
 1976 Estimate.....\$1,296,000
 1977 Estimate.....\$1,447,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	61	2	63
11 Personnel Compensation.....	816	81	897
12 Personnel Benefits.....	177	22	199
21 Travel & Trans. of Persons...	56	2	58
22 Transportation of Things.....	5		5
23 Rent, Comm. & Utilities.....	59	14	73
24 Printing and Reproduction....	5		5
25 Other Services.....	41	2	43
26 Supplies and Materials.....	108	7	115
31 Equipment.....	29	23	52
TOTAL	1,296	151	1,447
<u>Analysis of Increase</u>			
Necessary Pay.....		57	
Other Uncontrollable.....		14	
Program Funds.....		80	

ABSTRACT - The Smithsonian Tropical Research Institute (STRI) conducts advanced studies in ecology, behavior, and evolution of tropical organisms and manages related programs in the areas of education and conservation. The tropics contain the greatest diversity of life on this planet. They offer the biologist the best natural laboratory for studying the interrelationships of life on earth. Panama further offers unique zoogeographic characteristics to researchers with opportunities to study terrestrial life forms of North America, South America, or the confluence of the two, and opportunities to study and compare marine life in the Atlantic and Pacific Oceans.

In FY 1977, an increase of 2 positions and \$80,000 is sought to meet the following research and safety requirements: 1 position and \$30,000 to perform studies of fresh water ecosystems and their relationships to the siting of hydroelectric dams; 1 position and \$31,000 to analyze the genetic composition of tropical organisms, particularly as related to ecological and behavioral variances; and \$19,000 to purchase and maintain complex scientific equipment as well as communication, navigation, and other safety equipment for the Institute's research vessels. Further amounts of \$57,000 for necessary pay for existing staff and \$14,000 for the increased rates of utilities are justified in the Uncontrollable Section (page A-5).

PROGRAM - The Institute provides a base of operations and an intellectual center for advanced studies of ecology, behavior, and evolution in the tropics. Because of the diversity of tropical organisms and the complexity of their relationships, the tropics represent one of the most interesting yet poorly understood biological regions of the world. Most of the underdeveloped nations, and those with the most rapidly growing populations, are within the tropics. It is here that major environmental changes are likely to occur during the next decade. Understanding and properly managing tropical environments are essential to their preservation as well as to the protection of living systems elsewhere in the world. For example, a substantial proportion of the world's oxygen may be produced by the tropical forests of the Amazon. Ecological studies should help us predict how destroying these forests will affect the earth's atmosphere. Another example of the usefulness of this basic research is reflected

in a study of spider ecology in which it has been learned that the natural spider fauna can consume 160 kilograms of insects over approximately two and one half acres annually. Thus, in many agro-ecosystems promotion of this natural "free" insect control may offer an alternative to costly spraying with the subsequent development of chemical-resistant pests and other undesirable secondary effects.

STRI's research stations in Panama provide immediate access to tropical terrestrial and marine environments. These include almost 9,000 acres of forest reserve on Barro Colorado Island and the adjacent peninsulas in Gatun Lake, a mangrove lagoon, and coral reefs at Galeta Point on the Atlantic coast as well as rocky reefs at Naos Island on the Pacific coast. Field vehicles and research vessels allow comparative studies to be carried out throughout the Republic of Panama and along the length of both coasts. A small facility in Cali, Colombia, provides access to high forest plateau in the Andes. The Institute's permanent scientific staff, as well as many visiting scientists and students, conduct research in these areas as well as in other parts of Central and South America, the Indo-Pacific, Asia, and Africa, where comparative studies are clarifying the distinctive ecological relationships of the tropics.

During FY 1976, the permanent scientific staff of STRI is 17. There are 12 long-term, pre-, and post-doctoral students associated with STRI. It is anticipated that the facilities will be used for shorter periods by approximately 1,000 visitors from all over the world. In FY 1975, 74 seminars were held and 69 scientific papers were published in the world's leading scientific journals by staff and associates.

One of the most important responsibilities of the Institute is advanced training in tropical biology. Teaching efforts include lectures for visiting undergraduate students, an extensive seminar program, and individually tailored and supervised research plans for advanced fellows.

JUSTIFICATION OF \$80,000 INCREASE (Research and Safety) - The isthmus of Panama has only two man-made lakes, both formed with the creation of the Panama Canal. These lakes have been studied extensively particularly by scientists attached to STRI and have been found to have a relatively impoverished fauna. Now, due to the increased demand for hydroelectric power, two more major dams, each forming a man-made lake, will be constructed in Panama this decade: the Bayano Dam in Darién Province and the Fortuna Dam in Chiriquí Province. The ecology of the new freshwater lakes is of inherent scientific interest particularly in view of the massive environmental changes that occur in the first years of a new lake. As has been learned from the creation of lakes behind such major new dams as the Aswan and Volta in Africa, adverse effects concerning fish populations, sediments, water weeds, and the spread of water-borne diseases can be expected unless the new lake is carefully monitored and managed. One position and \$30,000 are requested to hire a specialist in freshwater biology to study the new lakes. Since the new bodies of water are expected to be much richer in freshwater life than the lakes of the Panama Canal, fruitful insights will be gained by the proposed comparative study.

One of the problems related to the study of tropical organisms is that of sorting out the differences in closely-related populations and species. The subtleties of tropical adaptations are often difficult to resolve with classical techniques of analyzing form and structure. One of the most promising fields of contemporary biology involves the biochemical analysis of genetic material--a technique which enables biologists to detect subtle differences and responses in seemingly identical populations. An increase of one position (a biochemical geneticist) and \$31,000 would enable STRI to add significantly to current data on tropical organisms through the application of this new technique. Furthermore, by performing these studies in the isthmus of Panama,

an area of known geological age, the geneticist is provided with a time base for measuring the rate of genetic change. This information, correlated with the other information gathered by STRI scientists on the ecological and behavioral differences in populations, could lead to a major breakthrough in our understanding of evolutionary processes.

An additional amount of \$19,000 is requested to fund the increased costs associated with the purchase and maintenance of complex scientific equipment as well as communication, navigation, and other safety equipment for use on research vessels. Many essential pieces of scientific equipment (e.g., a spectrophotometer, an instrument required for almost all studies at STRI involving chemical analysis) are over ten years old and have deteriorated from the effects of constant use. In addition, a recent study conducted by the Smithsonian's Office of Protection Services strongly recommended additional safety equipment for the Institute's research vessels. The requested increase will provide additional life boats, reliable emergency radio communication, and additional navigational aids.

RADIATION BIOLOGY LABORATORY

1975 Actual.....\$1,542,000
 1976 Estimate.....\$1,710,000
 1977 Estimate.....\$1,853,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	48	0	48
11 Personnel Compensation.....	781	34	815
12 Personnel Benefits.....	71	3	74
21 Travel & Trans. Of Persons...	15		15
22 Transportation of Things.....	8		8
23 Rent, Comm. & Utilities.....	451	106	557
24 Printing and Reproduction...	16		16
25 Other Services.....	45		45
26 Supplies and Materials.....	96		96
31 Equipment.....	227		227
TOTAL	1,710	143	1,853
<u>Analysis of Increase</u>			
Necessary Pay.....		37	
Other Uncontrollable.....		36	
Program Funds.....		70	

ABSTRACT - The Radiation Biology Laboratory (RBL) studies the influences of environmental factors--light, temperature, humidity, and atmospheric content--on biological systems in order to help understand their growth and development. There is a continuing increase in interest in the environment and in requests for the Laboratory's data from ongoing programs. For FY 1977 a program increase of \$70,000 is requested to fund utility costs associated with expanded laboratory operations. Necessary pay requirements for present staff, amounting to \$37,000, and utility and communication rate increases, amounting to \$36,000, are justified in the Uncontrollable Section (page A-5).

PROGRAM - Light is the key controlling environmental factor for development and growth of biological systems. Storage of solar radiation as chemical energy in photosynthesis is basic for all life on earth. The utilization of this energy is regulated by subtle, changing signals of light quality, duration, and intensity. A primary objective of the RBL is to explain the influences of the various factors in the environment--light, temperature, humidity, and atmospheric content--on growth and development and to characterize the molecular mechanisms through which these signals operate.

This aim is accomplished by studying these environmental influences on plant growth and development in the laboratory under controlled conditions using biochemical, biophysical, and physiological techniques and then verifying the importance of these processes in nature by monitoring the natural, dynamic environment. An example of spin-off value from these measurements is the collection of solar isolation data necessary for calculating the feasibility and requirements for solar collectors used to provide an alternate source of energy. Such programs of research by their very nature are long-term and require the concerted team efforts of many scientific disciplines. Disciplines represented at RBL include physiology, cytology, biochemistry, biophysics, physics, engineering, electron microscopy, and morphology.

The research of the Laboratory consists of three principal areas: (1) regulatory biology, (2) environmental biology, and (3) carbon-14 dating. Since its inception in 1928, the Laboratory has pioneered research into the influences on growth of the color

quality of visible and near visible light such as ultraviolet. The present experimental program is of greater scope than in any other single laboratory in the world. The Laboratory has been credited with major contributions in the field of photobiology, several first achievements in action spectroscopy, and the development of primary standards for the measurement of solar energy.

Major accomplishments in FY 1975 include the following:

1. The analysis by carbon dating techniques of several charcoal hearth remains from the Meadowcroft, Pennsylvania, site have given dates of $14,200 \pm 500$ B.C. These dates are the earliest and most reliable for human occupation of eastern North America.
2. The Proceedings of the Symposium on Solar Radiation, a compilation of papers on methods of evaluation and intercomparison of standards for solar measurements, was published in December 1975.
3. Measurements of plant growth in the newly-completed controlled-condition plant growth chambers indicate that, for leaf lettuce exposed to pulses of light, photosynthesis is 20 percent more efficient than for plants exposed to the same light energy levels distributed continuously.
4. Conversion of sunlight to biologically useful energy occurs in photosynthetic membranes of green plants. The growth of these membranes has been discovered to take place by protein synthesis directly on the membranes themselves. This mechanism may be generally applicable to other types of membranes and is of importance in mammalian membrane growth.

JUSTIFICATION OF \$70,000 INCREASE (Building Management) - The first phase of the new environmentally-controlled plant-growing facility, replacing the facility no longer available on the Mall, is expected to be operational at the RBL's Rockville, Maryland, site by the end of calendar year 1976. This facility is to be used in determining the correlation between measured solar radiation, temperature, humidity, and various air pollution factors and responses in plant development. Sophisticated equipment to establish and maintain precise environmental conditions for controlled laboratory experiments will increase utility consumption considerably. Assuming that rate increases between FY 1976 and FY 1977 remain comparable to those presently occurring, an increase of \$70,000 will be required for this new facility.

OFFICE OF INTERNATIONAL PROGRAMS

1975 Actual.....\$419,000
 1976 Estimate.....\$351,000
 1977 Estimate.....\$364,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	16	0	16
11 Personnel Compensation.....	297	12	309
12 Personnel Benefits.....	27	1	28
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction...	4		4
25 Other Services.....	5		5
26 Supplies and Materials.....	2		2
TOTAL	351	13	364
<u>Analysis of Increase</u>			
Necessary Pay.....		13	
Program Funds.....		0	

ABSTRACT - The Office of International Programs oversees the Smithsonian Foreign Currency Program and the International Liaison Section. No program increase is sought for FY 1977. Necessary pay in the amount of \$13,000 is sought for existing staff.

PROGRAM - The functions of administering the Smithsonian Foreign Currency Program and the International Liaison Section are performed in the Office of International Programs, successor to the Office of International and Environmental Programs.

The Smithsonian Foreign Currency Program supports museum programs, scientific and cultural research, and related educational activities in six countries where the United States owns local currencies in "excess" of its needs as determined by the Treasury Department. More than 230 institutions in 29 states and the District of Columbia have benefitted from the Program. An appropriation of \$4,481,000 in "excess" foreign currencies is requested for FY 1977. This amount includes \$3,481,000 for research projects and \$1,000,000 for the third of four contributions to Egypt for the preservation of the monuments on the Island of Philae.

The Smithsonian proposes to make the United States contribution for the salvage of the Philae monuments, which was previously funneled through the UNESCO trust fund for this purpose, available to the Government of Egypt in FY 1977 in order to complete this worthy project without costly delays. The work is well underway and is competently managed. The campaign to safeguard the Monuments of Nubia, of which the Philae program is a part, was initiated by the Government of Egypt and has always been fully under its direction. Contributions made in this way would comply with the terms of Public Law 93-559 prohibiting payments to UNESCO.

The International Liaison Section facilitates the activities abroad of all of the Institution's bureaus. Responsibilities include coordination of activities with the Department of State and foreign governments, including passport and visa services for Smithsonian staff and permits for research and for the import and export of research equipment and specimens.

The Center for Short-Lived Phenomena was moved to the National Museum of Natural History and renamed the Smithsonian Environmental Alert Network during early FY 1976. As part of reorganizations that started in FY 1975, additional environmental resources were moved to the Assistant Secretary for Science.

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

1975 Actual.....\$443,000
 1976 Estimate.....\$534,000
 1977 Estimate.....\$645,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	20	3	23
11 Personnel Compensation.....	352	72	424
12 Personnel Benefits.....	32	6	38
21 Travel & Trans. of Persons...	7	2	9
23 Rent, Comm. & Utilities.....	45	3	48
24 Printing and Reproduction....	3	2	5
25 Other Services.....	35	2	37
26 Supplies and Materials.....	29	10	39
31 Equipment.....	31	14	45
TOTAL	534	111	645
<u>Analysis of Increase</u>			
Necessary Pay.....		28	
Other Uncontrollable.....		3	
Program Funds.....		80	

ABSTRACT - The Chesapeake Bay Center for Environmental Studies (CBCES) is a natural area for research in complex land-water relationships and for use in creating public awareness and understanding of ecological systems as they may be affected by human disturbance. The FY 1977 budget reflects an increase of 3 positions and \$80,000 to provide the following program and support needs: (1) Research--an estuarine ecologist and a temporary research technician (\$26,000) and support funds of \$19,000 to provide continuity for the Center's ongoing effort to establish baseline conditions in the Rhode River estuary against which to estimate the impact of pollution loading; (2) Education and Public Orientation--an information specialist (\$14,000) and support funds of \$1,000 to meet the Center's obligations in information dissemination and public education to achieve public knowledge and understanding of the results of the Center's research programs; and (3) Protection--an assistant security officer (\$10,000) and related equipment (\$10,000) to provide security for the Center's 2,600 acres of open forest and shoreline. An additional amount of \$28,000 is needed for necessary pay for existing staff and \$3,000 for the increased cost of utilities, both justified in the Uncontrollable Section (page A-5).

PROGRAM - The Chesapeake Bay Center is a 2,600 acre area located on the Chesapeake Bay, seven miles south of Annapolis, Maryland, about equidistant from Baltimore and Washington. It was established in 1965 for the purpose of creating scientific and education programs in the environmental sciences leading to a more complete understanding of complex natural relationships affecting estuarine and watershed systems. The development of these programs was made possible by the acquisition (with non-appropriated funds) of a land-water unit large enough to include a full range of forests, marshes, fields, and agricultural areas. Taken together, these form the mosaic of land uses characteristic of the mid-Atlantic region since the early 1600's. The area is ideal for study of the results of man's past and present activities as vital components of interacting physical and biological systems. Thus, the Center provides a living museum of contemporary and historical significance, a primary resource for teaching and research on complex living systems. It is the largest facility in the nation available for the study of land-water (estuarine) relationships.

The research program is being conducted in conjunction with Federal agencies and universities and is a long-term effort to understand the functioning of terrestrial and estuarine ecosystems. Current research is focused on the Rhode River and its watershed. Estimates are being made of the amounts of nitrogen and phosphorus received by the Rhode River from rainfall, surface runoff, and the adjacent waters of the Chesapeake Bay. Measurements are also being made of the amount of bacteria and sediment added to the Rhode River from land runoff on over five square miles of watershed. The extent of nutrient uptake and sediment and bacterial trapping by estuarine marshes is also being measured. These contemporary studies are linked to an intensive analysis of land use changes which have occurred in the Rhode River watershed since the time of first settlement. The objective of this research is to determine the effect of changing land use patterns on terrestrial and estuarine ecosystems processes.

Education programs are based on the Center's environmental research projects. Activities include workshops and conferences for a variety of citizen groups in order to provide information on the planning and management significance of ecosystem research results. There are joint efforts with other academic and private institutions in promoting adult outdoor environmental education. The Center also serves as a clearinghouse and implementation center for national outdoor biology education projects. It conducts regional school-tour programs and out-of-school environmental education experiences for children, and nationwide research and education training for high school and college students. Most of these programs currently are carried out with grant funds.

JUSTIFICATION OF \$80,000 INCREASE - The Center carries out much of its work through short-term grants and contracts from government and private sources. Appropriated funds have been used to manage the facility and to assure the continuity of long-range research studies.

Research - One of the primary goals of the CBCEs is the development of a resident scientific staff in order to provide a level of research effort consistent with CBCEs goals, and for continuity of research in major program areas. Presently only two scientists, both in terrestrial ecology, are permanently assigned to the Bay Center staff. The activities of this core scientific staff are augmented by temporary appointments to fill high priority program gaps and related support funded through outside grants and contracts and the International Environmental Science Program. In FY 1977, an estuarine ecologist and a temporary research technician (\$26,000) and support funds of \$19,000 (travel, computer services, printing, supplies, and equipment) are requested to conduct a long-term study of the effects of pollution on estuarine systems.

Education and Public Orientation - The principal staff requirement in education is in the area of public service and information dissemination. The growth in the Center's problem-oriented research programs over the past two years has created a demand for the results of this research by the general public, legislators, and other public officials both regionally and nationally. Previous studies have demonstrated that the dissemination of research results is most effective for the general public when written in a form which indicates the relationship of the research to societal or decision-making needs. There is a need, therefore, for an information specialist (\$14,000) with related support funds of \$1,000 to respond to requests for research results and related public information. It is expected that as a result of this position approximately 10 to 12 detailed research reports will be prepared in FY 1977 and an equal number of workshops and other public presentations held. This should enable the Center to meet the nearly 500 annual requests received for such reports.

Protection - The addition of an assistant security officer (\$10,000) will serve to provide back-up protection for the Center's 2,600 acres of open forest and shoreline. This individual's responsibilities will be split between patrolling and assisting in a wide variety of general maintenance activities. An amount of \$10,000 is requested for equipment to carry out inhouse shop projects both in maintaining facilities and supporting the scientific and educational programs of the Center.

NATIONAL AIR AND SPACE MUSEUM

1975 Actual.....\$3,947,000
 1976 Estimate.....\$5,649,000
 1977 Estimate.....\$6,244,000

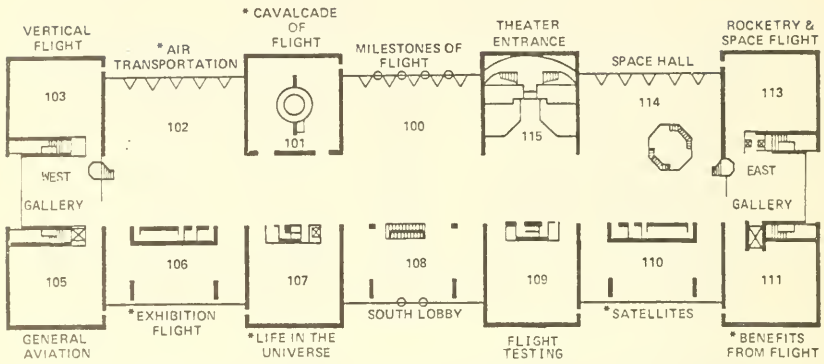
(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>230</u>	<u>0</u>	<u>230</u>
11 Personnel Compensation.....	2,647	546	3,193
12 Personnel Benefits.....	238	49	287
21 Travel & Trans. of Persons...	20		20
22 Transportation of Things.....	25	7	32
23 Rent, Comm. & Utilities.....	20	15	35
24 Printing and Reproduction....	5	158	163
25 Other Services.....	2,176	-641	1,535
26 Supplies and Materials.....	221	223	444
31 Equipment.....	<u>297</u>	<u>238</u>	<u>535</u>
TOTAL	<u>5,649</u>	<u>595</u>	<u>6,244</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		171	
Program Funds.....		424	

ABSTRACT - The National Air and Space Museum (NASM) was created by Congress to memorialize the development of aviation and space flight; collect, preserve, and display aeronautical and space flight artifacts of historical significance; and serve as a repository for documentary and artistic materials related to air and space. An increase of \$424,000 is requested to annualize the salaries of 57 custodial personnel to be hired in the last quarter of FY 1976. In addition, \$171,000 are sought for necessary pay for existing staff.

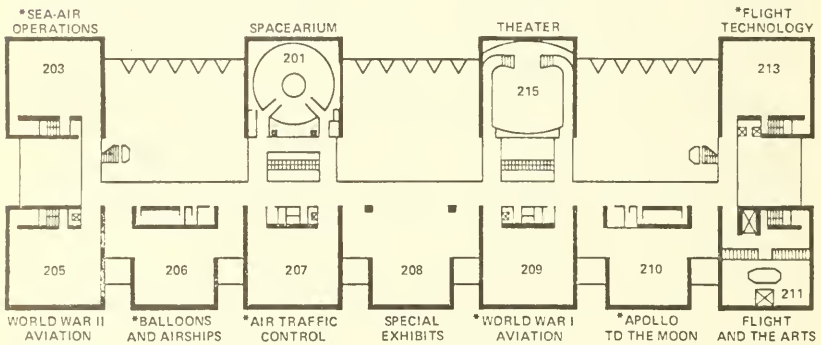
PROGRAM - FY 1977 will be the first year that the new National Air and Space Museum is open to the public. During that year, an estimated seven million visitors will see one of the finest and most comprehensive collections of historical aircraft and spacecraft displayed in 22 exhibit halls. In addition to its exhibit areas, the museum contains two public performance centers--a 70-mm film theater and a 70-foot domed spacearium. Spacearium programs will be designed to help visitors comprehend the relationships and significance of space and the universe while theater programs will enable the visitor to "experience" air and space flight and the achievements generated by the people, sciences, and technologies portrayed in the Museum.

Fiscal years 1975 and 1976 have been spent preparing for the opening with heavy emphasis on scripting, designing, and fabricating exhibits using the most modern techniques, including sophisticated audiovisual and electromechanical devices. This intensive effort will allow the opening of the entire building on schedule, but, as planned, 50 percent of the space in the galleries will contain long-term "core" exhibit units, while the remaining exhibit space will contain interim displays such as labeled aircraft and spacecraft. These latter exhibit areas will be completed in a program continuing through FY 1977 and subsequent years. In order for the Museum to produce this large number of quality exhibits in time for the opening and to avoid unnecessarily large staff increases, contractors have been used for the past two years to assist in exhibit design and production. Subsequent to the Museum's opening, this contract support will be substantially reduced, thereby necessitating replacement expenditures for exhibit supplies and equipment for the NASM exhibit staff, as reflected in the object class distribution.

NATIONAL AIR & SPACE MUSEUM



FIRST FLOOR PLAN



SECOND FLOOR PLAN



* Galleries which, on July 4, 1976, will contain completed exhibit units. The balance of the exhibit halls will contain interim displays such as labeled aircraft and spacecraft.

In fiscal year 1977, the new Hall of Exploration will be installed. Although NASM personnel, supplies, materials, and equipment will be used to construct the exhibit, contracts will be awarded for such things as an animated film, a special theater, and flight simulators. It is also planned to upgrade the General Aviation Hall and Space Hall to core status. Again, inhouse labor, materials, and equipment will be used for exhibit construction, but contracts will be let for simulation displays, special films projectors, lens, and for the design and construction of special theaters. This upgrading includes elements contained in the original exhibit hall design which could not be included in the FY 1976 fabrication contracts because of the shortage of time and funds.

The exhibit in the temporary exhibit hall will be changed, which will require the temporary services of professional riggers to assist the staff in moving large artifacts. In addition, exhibits will be developed for corridor spaces in the building where none currently exist. FY 1977 will also be the time to begin to improve and replace audiovisual and electromechanical parts and equipment as well as to improve lighting and miscellaneous exhibits software.

The exhibits program is only one of several functions that make a museum an effective learning center. The education programs started in FY 1975 and 1976 will come to fruition when the new building opens. The contents of the Museum will be available to students in the metropolitan area, with specially designed tours; and an active "outreach" program is being developed to extend NASM to other parts of the country. In FY 1977 emphasis for the "outreach" program will be directed to the production of cassette tapes and slides of lectures, and filmstrips and records to show and describe exhibits in selected galleries. These tapes, slides, and filmstrips will be available for distribution to schools throughout the country. The training of over 225 docents, museum rovers, and museum aides will continue, and the development of museum assistance and materials for the handicapped will be accelerated. The ability to measure the learning experiences gained through museum visits is an important part of museology. To accomplish this evaluation, a program will be established using the latest information gathering and opinion research techniques. The results will be used to improve or revise exhibits and education programs.

Through FY 1976 the professional staff of the museum will be involved in the research and preparation of exhibit scripts. In FY 1977 the staff members will shift their focus to research and publication in the many subject fields of air and space technology, including Planetary Topography and Scientific Earth Observations from the Space Shuttle, Technology Transfer, History of Air Accident Investigations, and History of Air Racing. In addition, three publications in the new National Air and Space Museum Series, Smithsonian Studies in Air and Space, will be prepared as well as publications in the Field of education; such as, the museum brochure in five languages, Teacher-Guides for Guided School Activities, Volunteer Handbook, and artifact monographs.

The preservation and restoration of major artifacts will continue in FY 1977 with four restorations and 20 preservations scheduled. The artifacts to be restored are: the Langley Aerodrome, one of the first major attempts to fly a power-driven aircraft; the Albatross D-5, an aircraft flown by Baron von Richthofen in approximately 60 of his 80 victories and one of the remaining two Albatross in existence; the Lockheed X-P80, America's first operational jet aircraft; and the Messerschmitt 262, the first jet aircraft to enter combat.

The following restorations started in FY 1976 will be finished in FY 1977: the Mustang-P51 (Excalibur), the airplane flown by Captain Charles Blair in pioneering over-the-pole air routes from California to Europe; and the Aeronca C-2, the first really successful light plane to be used in general aviation. In addition, the permanent warehousing and cleanup of all NASM artifacts now stored in outside temporary storage at the Silver Hill, Maryland, facility will continue. Emphasis will also be placed on setting aside space where restored air and spacecraft not scheduled for installation in the new museum might be viewed by the visiting public.

JUSTIFICATION OF THE \$424,000 INCREASE (Buildings Management) - To supply the full range of janitorial and custodial maintenance service for the new museum, 57 persons, approved in the FY 1976 budget, will be hired in the last quarter of this year. An amount of \$424,000 is requested to annualize the salaries of these employees in FY 1977.

CENTER FOR THE STUDY OF MAN

1975 Actual.....\$337,000
 1976 Estimate.....\$372,000
 1977 Estimate.....\$407,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	12	0	12
11 Personnel Compensation.....	294	22	316
12 Personnel Benefits.....	26	2	28
21 Travel & Trans. of Persons...	7	2	9
23 Rent, Comm. & Utilities.....	5		5
24 Printing and Reproduction...	2	1	3
25 Other Services.....	30	5	35
26 Supplies and Materials.....	3	1	4
31 Equipment.....	5	2	7
TOTAL	372	35	407
<u>Analysis of Increase</u>			
Necessary Pay.....		9	
Program Funds.....		26	

ABSTRACT - The Center for the Study of Man (CSM) has several anthropological and human science programs: continued development of the Encyclopedia of North American Indians; sponsorship of an urgent anthropological program; coordination of international anthropological efforts on current social problems; conduct of an immigration and ethnic studies program; and the development of an anthropological film study center. An increase of \$26,000 is requested for research support for the National Anthropological Film Center and Archive and the Immigration and Ethnic Studies Program. A further \$9,000 are required for necessary pay for existing staff.

PROGRAM - The CSM coordinates research and development on a series of important anthropological and human science programs. The American Indian Program continues to be focussed on the development of the 20-volume encyclopedic Handbook of North American Indians. An experienced project manager is being hired to oversee production leading to publication of the full 20 volumes. The design and printing specifications have been completed and the volumes on California Indians and Indians of the Northeast should appear in 1976. Funds for the actual printing of this encyclopedic work are contained in the Bicentennial request.

The American Indian Program also provides scholarly educational materials concerning Indians to individuals, schools, and Indian communities. It helps coordinate educational intercommunication among Indians themselves, with scholars, and with appropriate Government and private agencies. The Center has worked closely with task forces of the new American Indian Policy Review Commission established by Public Law 93-580. The gaps in our knowledge of North American Indian cultures have become more evident as work on the encyclopedic Handbook has progressed. There is a real urgency to fill these wherever possible. The pressing need to interview tribal elders who are anxious to fill in the record of their proud past continues. The American Indian Program has continued to investigate the link between past and present in Indian communities. Field research is presently being carried out in Oklahoma, Arizona, Montana, Wisconsin, South Carolina, North Carolina, and Virginia. A map showing the present-day location of surviving Indian communities in the Eastern and Southern United States is being planned. Preliminary investigation indicates that more Indian groups have survived than previously estimated, but much additional work remains to be done.

The Urgent Anthropology Program, which identifies, publicizes, and finances by means of small awards, needed research in geographical areas that are undergoing rapid environmental change as a result of urbanization, improved communications, better transportation, and other factors has been helpful in this respect. Its objective is to salvage and preserve information in selected rapidly-changing areas before time and events eliminate opportunities to understand the cultures which existed there.

The Cross-Cultural Research Program coordinates the efforts of numerous anthropologists and other human scientists in developing new comparative information on contemporary world problems. An investigation of the cultural effects of rising world land values is in the planning stage.

The Immigration and Ethnic Studies Program is concerned with the peopling of America as an ongoing process. It has carried out basic research in Panama, the Caribbean area, Canada, and the United States. Small seminars on: adjustment of new migrants, i.e., Vietnamese; comparative studies, i.e., with Canada; and internal migration, i.e., from Puerto Rico, have been held. A major conference on new immigrants will take place during the Bicentennial year. This program is also exploring the problem of studying illegal immigrants and evaluating data from agencies with information about Pacific Islander immigration.

The National Anthropological Film Center was established to take fuller advantage of the scholarly potential of film as a tool of inquiry into the vanishing and changing ways of life and cultures of the world. It records, collects, and preserves the cultures of North American Indians and other peoples as recorded on film. Much of the film being collected is in great danger of destruction. Since its inception, the Center has collaborated with individuals and institutions in California, Massachusetts, Washington, Indiana, Illinois, New Mexico, and New York.

Physically, the Center will serve as a research facility and repository for visual studies in much the way that museums obtain and preserve important objects and materials for continued study and to support findings. The Center will also provide cultural information to peoples who have little written history, thereby helping fulfill their need for information related to their own development. As an example, American Indians are extremely interested in film records of their own past for educational purposes and for the small tribal museums now being established on many reservations.

Projects have been started which involve filming a number of cultural survivals. The Center is giving special attention to the few remaining small, isolated cultural groups of the world which have evolved independently over thousands of years, and to other small social enclaves which represent vanishing unique expressions of human organization and behavior. It also collaborates with documentary film projects sampling the range of better known, more stable cultural variation, including traditional folk cultures, as well as selected aspects of our changing modern society.

Presently being planned is a research film library in which film prints will permit review, study, and scholarly assembly, leaving original films undamaged to take advantage of future advances in the copying technology.

Though only in existence a short time, the Film Center and Archive has processed a number of important ethnographic films. It has acquired 125,000 feet of film from Afghanistan, Bolivia, and Kenya; 35,000 on New Hebrides; 75,000 on New Guinea; 42,000 on the Huichol Indians of Mexico; 2,400 on Cambodia and Thailand; 80,000 on the Pushtoon in Afghanistan; 80,000 on the Canala Indians of Brazil; and 27,000 on Polynesian dance in the Cook Islands.

JUSTIFICATION OF \$26,000 INCREASE (Research) - The Anthropological Film Center has been able to develop collaborative projects with scholars in various parts of the world; and it has been able in a few crucial areas to provide raw film stock, film processing, equipment, and guidelines to anthropologist-filmmakers interested in preparing scholarly visual documents as a permanent research resource. Some experimental field studies are also underway in an effort to develop and improve visual sampling methods and equipment. The Center has also begun its search for existing anthropological film footage of research value which may be in danger of deterioration and loss. An initial \$20,000 was provided for this important new program in the FY 1976 appropriation. A further \$20,000 are sought in the FY 1977 budget to strengthen efforts by providing temporary secretarial help, travel and fieldwork, contracts for the assembly and preservation of film, and supplies and materials associated with film storage and safekeeping. A further \$6,000 are requested for the significant companion effort of the Research Institute on Immigration and Ethnic Studies. This money is needed for consultants, seminars, and field research on new migrants. The Institute will produce valuable bibliographies, research notes, and articles on this subject matter.

NATIONAL ZOOLOGICAL PARK

1975 Actual.....\$5,429,000
 1976 Estimate.....\$6,207,000
 1977 Estimate.....\$6,695,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	301	4	305
11 Personnel Compensation.....	4,436	316	4,752
12 Personnel Benefits.....	487	28	515
21 Travel & Trans. of Persons...	22	4	26
22 Transportation of Things.....	10	2	12
23 Rent, Comm. & Utilities.....	350	89	439
24 Printing and Reproduction...	16		16
25 Other Services.....	249	8	257
26 Supplies and Materials.....	483	22	505
31 Equipment.....	127	15	142
Acquisitions for collections	25	4	29
41 Grants.....	1		1
42 Insurance Claims & Indem.....	1		1
TOTAL	6,207	488	6,695
<u>Analysis of Increase</u>			
Necessary Pay.....		273	
Other Uncontrollable.....		59	
Program Funds.....		156	

ABSTRACT - The National Zoological Park exhibits a large and varied animal collection; serves the information and education needs of the public; and conducts programs of research, animal health, and conservation on 156 acres in Rock Creek Valley and 3,000 acres near Front Royal, Virginia. For FY 1977, the National Zoo's budget requirements include an additional 4 positions, 2 part-time positions, and \$156,000 to place into service new facilities opening in FY 1977 and to undertake the needed study of nutrition as it affects Zoo animals. Further amounts of \$273,000 for necessary pay and \$59,000 for utility rate increases are requested in the Uncontrollable Section (page A-5).

PROGRAM - In 1890, Congress established the National Zoological Park for the "advancement of science and the instruction and recreation of the people." To accomplish those purposes, the Zoo exhibits a great and varied collection of animals; maintains information, education, and visitor service programs for the public from all over the United States; and undertakes scientific research, including biomedical studies, for the increased understanding, preservation, and healthful well-being of valued exotic animals in captivity.

The National Zoo welcomes large numbers of visitors from every state. In FY 1976, Zoo hours have been lengthened to relieve crowding of very popular exhibits and to help the visitor enjoy a successful and unhurried stay. A critically-acclaimed graphics system consisting of pleasing symbols and informative panels aids the zoo-goer through new exhibits labeling. Useful and interesting educational insight is offered now with every major exhibit. New exhibits have opened on schedule as part of an overall improvement plan for the National Zoo. School tours and special tours for handicapped and disadvantaged children have been continued through volunteer efforts by the Friends of the National Zoo.

The Zoo provides, with increasing effectiveness, for the needs of its animals; each animal is given the greatest opportunity possible for natural movement and expression. At the Zoo such improvements are hard-won, step-by-step through rebuilding. With the greater space available at the Front Royal Conservation and Research Center, it has been possible to assemble already nearly 100 animals of 12 endangered or threatened species in successful breeding populations. Births of rare animals are occurring throughout the collection in larger numbers than ever before.

Taking advantage of its opportunities for national service, the National Zoo trains veterinary pathology interns for exotic animal practice; trains students in exotic animal study and management; hosts seminars on animal care attended by veterinarians from many zoos; and is developing new clinical information banks on anesthesia, x-ray, ocular diseases of exotic mammals, and antibiotic dosage levels for reptiles.

Research activities have led to better behavioral and physiological understandings of the necessary conditions for animal survival. The National Zoo, cited by a major publication recently as "One of the leading research zoos in the world," produced more than 40 publications of original research contributions by its staff last year. Two major conferences organized by the National Zoo brought together leading scientists working on problems of species survival from all over the world.

An example of the research productivity was the Zoo's determination of the particular social grouping necessary to achieve greater breeding and rearing success with a highly valued endangered primate, the Golden Marmoset. The technique was shared with other zoos to enhance the chances for survival of this beautiful animal. Studies progressed on determining reproductive strategies for the tiger, binturong, cheetah, lesser panda, gorilla, rare canids, giant panda, Pere David's deer, selected reptiles, and many birds. As another example of success, the National Zoo last year produced 19 Nene geese, more offspring than in any other place outside of the birds' hard-pressed natural habitat in Hawaii.

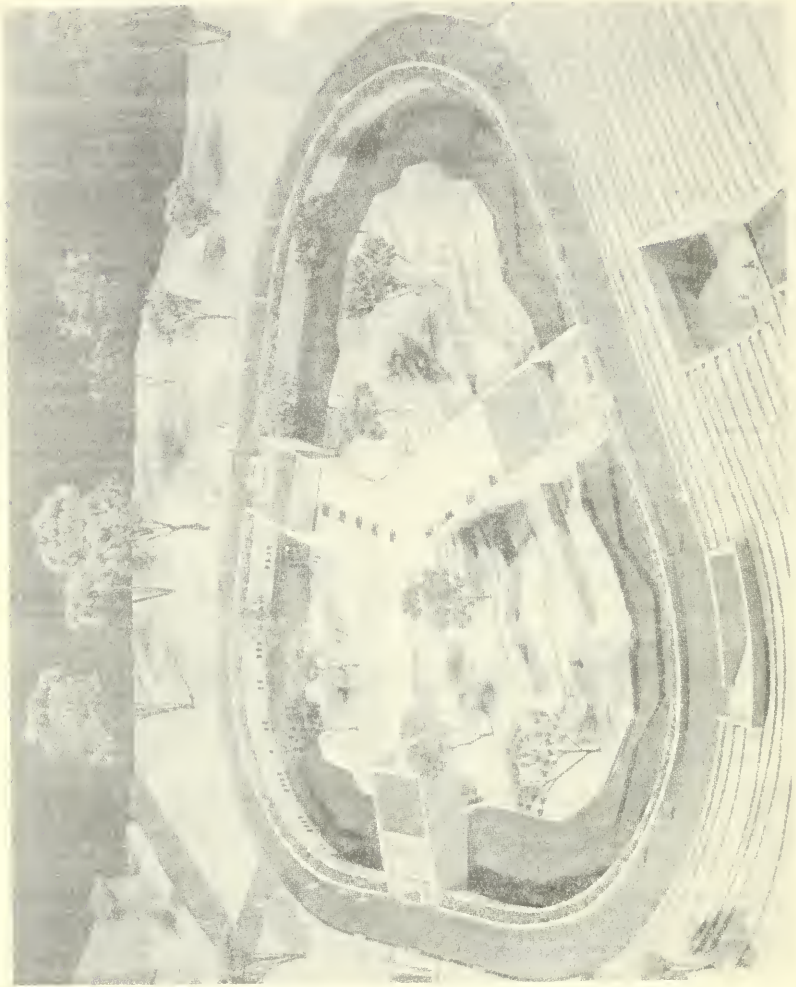
Joint breeding strategies were entered into by the National Zoo with seven other major zoos from across the country. The National Zoo is a leader in encouraging the kind of joint zoo collaboration increasingly essential for the successful preservation of precious species.

JUSTIFICATION OF \$156,000 INCREASE:

New Facilities - FY 1976 has brought the first fruits of an ambitious, but greatly needed building program at the National Zoo. Bicentennial visitors are being welcomed to such new or renovated areas as the Lion-Tiger Complex; expanded Elephant and Giraffe Yards; and new Bird House Yards. The remodeled Monkey House interior has already become the standard for modern zoo structures--a rare combination of building for visitor interest and animal well-being.

FY 1977 will see full-year operation of those facilities and such new facilities as a Polar Bear Exhibit, Grizzly Bear Exhibit, and rebuilt Bear Lines. Altogether the new facilities with their complex new heating and refrigeration systems, greatly enlarged viewing and display areas, and opportunities for increased animal populations call for support of \$61,000 for such requirements as:

- animal acquisition
- utilities
- animal food
- cleaning and maintenance supplies
- animal care equipment



MODEL OF LION AND TIGER EXHIBIT TO BE COMPLETED IN 1976

Travel to consult with other zoos on common efforts, to locate animals for new exhibits, and to move animals between institutions and the National Zoo will require an additional \$4,000. Those funds will restore the level of funding for travel available to the National Zoo three years ago, before renovation of the Zoo began and travel was curtailed. Additional travel funds allowed in FY 1976 covered the new travel costs associated with operation of the Front Royal Conservation and Research Center.

Proper care of the collection and new facilities calls for the addition of two utility system repairers; two animal keepers for half of FY 1977, to come on board as new facilities open to the public; and one nutritionist who will initiate badly-needed, long-term practical studies to ensure the continued beneficial feeding of the Zoo's priceless and irreplaceable animals. The cost of these positions in FY 1977 will be \$61,000.

Front Royal Conservation and Research Center - In Front Royal, Virginia, 3,000 acres devoted to breeding and animal care have greatly expanded the Zoo's ability to increase man's understanding of conditions that are essential for the preservation of rare and endangered species.

Acquired in FY 1975, the Center now is home for over 100 animals. By the end of FY 1977, at least 175 animals will be in Front Royal. Cooperative agreements with other zoos are in effect, resulting in pooled herds of the rarest animals, improving the chances of survival for those species. Research projects are underway involving animals important to the understanding of behavioral mechanisms vital to survival.

Protection and care of the animals and property call for one animal keeper to be added in 1977 (\$10,000) and \$20,000 for medicine, supplies, and necessary equipment.

OFFICE OF THE ASSISTANT SECRETARY FOR HISTORY AND ART

1975 Actual.....\$256,000
 1976 Estimate.....\$280,000
 1977 Estimate.....\$304,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	11	0	11
11 Personnel Compensation.....	246	6	252
12 Personnel Benefits.....	20	1	21
21 Travel & Trans. of Persons...	4	3	7
24 Printing and Reproduction....		3	3
25 Other Services.....	4	7	11
26 Supplies and Materials.....	5	4	9
31 Equipment.....	1		1
TOTAL	280	24	304
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Program Funds.....		17	

ABSTRACT - The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian history and art programs. In addition, this office oversees the planning and coordination of the Smithsonian's Bicentennial programs and projects. Also included under this heading are the American Studies program and the Joseph Henry Papers project. An increase of \$17,000 is sought for FY 1977 in support of the Joseph Henry Papers project. An amount of \$7,000 is also requested for necessary pay for current staff.

PROGRAM - 1. Immediate Office: With a base of five positions and \$147,000, the Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, coordinating, and reviewing the progress of the programs of the Smithsonian history and art bureaus and offices. In addition, this office oversees the planning and coordination of the Smithsonian's Bicentennial programs and projects. The bureaus and offices reporting directly to the Assistant Secretary for History and Art are the Archives of American Art, Cooper-Hewitt Museum of Decorative Arts and Design, Freer Gallery of Art, Hillwood, Hirshhorn Museum and Sculpture Garden, National Collection of Fine Arts, National Museum of History and Technology, National Portrait Gallery, Office of Academic Studies, Office of American Studies, and the Joseph Henry Papers.

11. Other Central History and Art Activities: The remainder of the resources identified for this office, six positions and \$133,000, supports the American Studies program and the Joseph Henry Papers project. The Office of American Studies organizes and conducts a formal program of graduate education in the material aspects of American civilization, and participates in the overall program of historical, archeological, and architectural history research at St. Mary's City, Maryland, funded by the State of Maryland, National Endowment for the Humanities, Rockefeller Foundation, and other foundations. The Editor of the Joseph Henry Papers and his staff have been gathering and preparing for publication the manuscripts of Joseph Henry (1797-1878), the pioneer American physicist and first Secretary of the Smithsonian Institution. Two volumes of the multi-volume letterpress series have been published by the Smithsonian Press, and the third volume will be substantially completed in FY 1977. In addition, a special volume of Henry's public lectures will be edited and there will be further work on

a supplementary microfilm publication. The Henry project has been endorsed by the National Historical Publications and Records Commission.

JUSTIFICATION OF \$17,000 INCREASE (Research) - Though nearly half of the Henry Papers' support has come from grants, Federal funds have accounted for the remaining portion of the expenditures since the project's inception. Work on volume three of the letterpress series, on the special volume of Henry's lectures, and on the Alexander Graham Bell-Joseph Henry Library, recently donated to the Institution by Bell's descendants, will entail additional research, travel, photoduplication, supplies, and services, the costs of which cannot be borne by existing grants. Requested increases seek to augment travel funds (\$3,000) and photoduplication allowances (\$3,000) formerly provided only through grants. An increase of \$4,000 is needed for general supplies to support extra work in preparation of the special volume and the initial installments of the comprehensive microfilm edition. Increases sought under "Other Services" will fund special searches of archives and manuscript depositories for the letterpress series (\$2,000) as well as cataloguing of the Bell-Henry Library (\$2,000). Also included are funds for computer time and paper costs (\$3,000), which are necessary for cataloguing the library and maintaining the project's distinction as a center for scholarly research.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

1975 Actual.....\$4,992,000
 1976 Estimate.....\$5,484,000
 1977 Estimate.....\$5,772,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	262	3	265
11 Personnel Compensation.....	4,133	218	4,351
12 Personnel Benefits.....	372	20	392
21 Travel & Trans. of Persons...	37		37
22 Transportation of Things.....	15		15
23 Rent, Comm. & Utilities.....	22		22
24 Printing and Reproduction....	55		55
25 Other Services.....	387		387
26 Supplies and Materials.....	229		229
31 Equipment.....	184		184
Acquisitions for collections	50	50	100
TOTAL	5,484	288	5,772
Analysis of Increase			
Necessary Pay.....		215	
Program Funds.....		73	

ABSTRACT - The National Museum of History and Technology (NMHT) is the repository of the collections documenting the historical and technological achievements of the American people. It has an active research and publications program, and its exhibits are seen by more visitors than any other museum in the world. The FY 1977 budget requests an additional 3 positions and \$73,000 for the following purposes: (1) Collections Acquisitions -- \$50,000 additional to augment purchase of objects for the National Collections; and (2) Collections Management -- 1 computer coder and 2 collections cataloguers (\$23,000) to provide a computer inventory and begin a standardized cataloguing of the Museum's collections. An additional amount of \$215,000 is required for necessary pay for existing staff.

PROGRAM - The NMHT is responsible for the following major programs: (1) research; (2) collections acquisition; (3) collections management; (4) exhibitions and performances; (5) education and public orientation; (6) conservation; (7) printing and reproduction (research publications); and (8) buildings and facilities management.

The NMHT occupies a unique position among the great museums of the world. As the repository of the National Collections documenting the American civilization, the Museum has responsibility for over 16,000,000 objects related to all facets of the American experience. Each of these objects deserves the highest level of professional care and preservation and must be stored, accessioned, conserved, and exhibited utilizing the best techniques and professional abilities available.

Since opening in 1964, the NMHT has provided a variety and richness of public exhibitions seen by 67,000,000 visitors. The Museum annually receives more visitors than any other museum in the world, receiving over 7,000,000 visitors during FY 1975. It is expected that this figure will exceed 12,000,000 during FY 1976, the Bicentennial year.

As a center for the scholarly study of the history of American material culture and the history of science and technology, this museum continues to support and encourage basic research and publication in its many subject fields, ranging from early exploration to studies of contemporary American culture. Education and public orientation activities include guided tours, demonstrations of trade and craft skills, lectures, and films. Programs and facilities for school children and for the handicapped are receiving special attention.

In FY 1976, the exhibit emphasis of the Museum has been applied to the two extremely large Bicentennial exhibitions, "A Nation of Nations" and, in the Arts and Industries Building, "1876: A Centennial Exhibit." Both exhibits will open during the spring of 1976. "Two Hundred Years of American Banking," an exhibit funded almost entirely by private sources, also opened in FY 1976. Also in progress is the "Hall of American Maritime Enterprise," funded jointly by the Museum and the maritime community. The Hall will celebrate the men, ships, and institutions that made possible the growth of our nation from a beachhead on a new continent to a flourishing maritime power. An important segment of the Hall, the S/S Oak Engine Room, will be open to the public in FY 1976, with total completion scheduled for FY 1978.

After completion of the Bicentennial exhibits, staff time will be devoted primarily to the complete redesign of permanent exhibits installed when the Museum opened in 1964. The first phase of this design will be concerned with a new Hall of American Science.

JUSTIFICATION OF \$73,000 INCREASE:

Collections Acquisitions - Over the years, appropriations available to the Museum with which to acquire museum objects have reached the \$50,000 level. This is a very small amount for a museum of this size and stature when market prices for necessary items to round out reference collections or to complete an exhibit are taken into consideration. The allocation of this amount among the NMHT's 21 curatorial divisions means that few significant items can be purchased. Unfortunately, competition for scarce objects does exist among museums, private citizens in this country and abroad, and other organizations, and many national treasures cannot be acquired for the benefit of the millions of visitors to their National Museum. Areas in which the National Collections need much strengthening are early work and everyday clothing, ethnic and Western materials relating to early settlement, medical sciences artifacts, significant time-keeping specimens, marine transportation articles, textiles, and postal history and numismatics items. Strenuous efforts are made to acquire objects by gift or by purchase with private donations. This effort will continue, but additional assured base funding is essential to allow orderly planning and execution of collections development. An additional amount of \$50,000 is sought in the FY 1977 budget.

Collections Management - After the Bicentennial year is over, the Museum will direct its energies to expansion of the collections management program and development of a uniform, museum-wide inventory of collections resulting in computerization of some 16,000,000 specimens that were acquired before FY 1975. Pilot programs in this effort are now fully implemented and proving to be successful. A total of 37,800 specimens will have been computerized during FY 1975 and FY 1976. One computer coder (\$9,000) is requested for this essential aspect of collections management. The Museum also plans to fulfill its commitment to the Institution's Upward Mobility Program by training low level, under-utilized persons to become collections management technicians at the target level, GS-7. Two cataloguers (\$14,000) are requested to aid in the inventory system. They will be trained by professional staff members in the Museum and will be able to perform important technical work in any of the NMHT's divisions when they reach their target grade levels.

NATIONAL COLLECTION OF FINE ARTS

1975 Actual.....\$2,046,000
 1976 Estimate.....\$2,330,000
 1977 Estimate.....\$2,520,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	104	2	106
11 Personnel Compensation.....	1,470	95	1,565
12 Personnel Benefits.....	132	9	141
21 Travel & Trans. of Persons...	21	1	22
22 Transportation of Things.....	95		95
23 Rent, Comm. & Utilities.....	20		20
24 Printing and Reproduction....	67	8	75
25 Other Services.....	308	15	323
26 Supplies and Materials.....	99	1	100
31 Equipment.....	18	11	29
Acquisitions for collections	100	50	150
TOTAL	2,330	190	2,520
Analysis of Increase			
Necessary Pay.....		79	
Program Funds.....		111	

ABSTRACT - The National Collection of Fine Arts (NCFA), the oldest national collection of art, is devoted to the conservation, study, and presentation of American painting, sculpture, prints and drawings, and, in the Renwick Gallery, to American design and crafts. In FY 1977, 2 additional positions and \$111,000 are requested to meet the following requirements: (1) Collections Acquisitions--\$50,000 to maintain a minimum acquisition program necessary to establish fully representative collections; (2) Research--\$50,000 and 2 positions to continue the Bicentennial inventory; and (3) Building Management--\$11,000 for a cabtruck and a trash compactor. Necessary pay funds of \$79,000 are sought for existing staff.

PROGRAM - This major collection of American art, the origins of which go back to the 1830's, was uncatalogued and ill-housed until the present facility was opened in the former Patent Office in 1968. The growing collection of some 17,000 works is now registered on computer and arranged, either in carefully planned galleries or in systematic storage, so that every work is available for public pleasure or scholarly study. Exhibitions are presented in the United States and abroad, and an active program of education is maintained for the schools and the general public.

In FY 1976, 19 new exhibitions were presented by the NCFA. Of these, two were cooperative efforts with other institutions and 17 were designed and produced by the museum. These included "Sculpture: American Directions, 1945-1975", "The Designs of Raymond Loewy" (at the Renwick Gallery), "Emanuel Leutz: Freedom is the Only King" and smaller exhibitions featuring one artist, such as Peggy Bacon and Abraham Rattner. Exhibitions were accompanied by authoritative publications prepared by the museum. Some 15 separate publications were issued. A new gallery devoted mostly to European and Asian art, part of the extraordinary bequest of John Gellatly, was also opened, thus utilizing the final available gallery space in NCFA's part of the Fine Arts and Portrait Galleries Building. Other galleries were reinstalled. In addition to the above, NCFA's office of exhibitions abroad continued to circulate exhibitions outside of the United States.

The very active education program was expanded to offer further activities for school children and the public. Some 21,000 public school children attended sessions within the museum, and many others were reached in the schools themselves. This department also supervised 50 junior and senior high school students who participated in a junior intern program and 17 college students who worked in a similar program.

JUSTIFICATION OF \$111,000 INCREASE:

Collections Acquisition - An increase of \$50,000 is requested to maintain an active acquisition program at the National Collection of Fine Arts. The NCFA is, aside from its other functions, a museum of record. Its permanent collection strives to represent a cross-section of American art of all periods and types, and special attention has been given to those aspects of art that might otherwise be overlooked in the changing fashions in taste. The effort has been to represent each significant American artist by a group of studies, as well as completed works, in order to record both the artist's creative procedure and his ultimate achievement. Care has been taken to concentrate particularly on artists not already well represented in other national collections. In the past year the museum purchased, among other works, two particularly beautiful mother and daughter portraits by the noted American artist, Ralph Earl, and a painting entitled "Mountain Landscape" by Sonntag. Also acquired were representative works of young contemporary artists, including works by Werner Drewes, Darryl Abraham, and a sculpture entitled "Self-Portrait" by Eugenie Gershoy. The department of prints and drawings has been very successful in the quality of works purchased from both acquisition funds and private donations. Among the artists represented by purchase this year were Robert Cottingham, Andy Warhol, Philip Pearlstein, and Jasper Johns. Because of the rising costs in all areas of the museum's activities, it has been increasingly difficult to maintain the necessary minimum acquisition program. NCFA has been fortunate in being the recipient of many more gifts of paintings and sculpture than it is able to purchase. This year only six paintings were bought with acquisition funds while 41 paintings were given to the museum. Similarly, out of 199 prints and drawings accessioned, only 44 were bought with Federal or private acquisition funds. In all, NCFA had 274 accessions this year with only 63 being purchased by the museum. Major works, priced on the market today from \$150,000 and up, cannot be considered for purchase on NCFA's present acquisition budget of \$100,000 or even on the proposed budget of \$150,000. Nevertheless, it is important to acquire such necessary works as can be afforded whenever possible. Each year the art market makes available any number of works which would greatly enhance the NCFA collection, but which the museum cannot even consider since its acquisition budget is so small.

Research - The Bicentennial Inventory of American Paintings Before 1914 has resulted in a data bank of approximately 150,000 descriptions and 35,000 reproductions of American paintings in the several years of the Bicentennial funding period. The Inventory begins to serve as a major research resource in July 1976. Where emphasis has been entirely on building the data file, beginning in FY 1977 the Inventory program will shift the emphasis of its activity to responding to public and scholarly inquiry. Staff is needed to receive inquiries by visit and mail and to determine how to put the Inventory to work to respond to the inquiries to maximum advantage. Simultaneously, however, content of the Inventory--records of American paintings--must continue to grow. Were the data bank not to grow, it would become obsolete, thereby losing the investment of work and funds made in the 1970-1976 period. Additional records, especially reproductions, must be actively sought and existing records must be upgraded as new information becomes available. Two positions, a coordinator and a clerk-typist (\$25,000), and \$25,000 for travel, printing, photographs, computer time, and supplies are requested to continue and maintain the Bicentennial Inventory of American Paintings.

Building Management - NCFCA shares with the National Portrait Gallery (NPG) the Fine Arts and Portrait Galleries Building (which also houses the Archives of American Art). The two bureaus also share in the administration and budgetary support of the building's management. Funding of \$11,000 is sought for two pieces of major equipment, a cabtruck (\$5,000) and a trash compactor (\$6,000). The NCFCA, NPG, and the Archives have frequent requirements for the pickup and delivery of collection and loan items. In addition to the FAPG Building, NCFCA is also responsible for the Renwick Gallery (a decorative arts and craft museum) and Barney House, currently housing a small collection and the offices of the Smithsonian Institution Traveling Exhibition Service. In order to service these three separate facilities as well as to improve the museum's very popular and successful "Discover Graphics" high school program, a cabtruck assigned to this building is necessary. The "Discover Graphics" program carries large presses to the area secondary schools to instruct students in the art of etching. The Renwick Gallery does not have a trash compactor, and, consequently, must be serviced several times each week for trash pickup. This is not only expensive, but is the cause of a serious rodent problem.

NATIONAL PORTRAIT GALLERY

1975 Actual.....\$1,499,000
 1976 Estimate.....\$1,726,000
 1977 Estimate.....\$1,876,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	74	1	75
11 Personnel Compensation.....	1,135	82	1,217
12 Personnel Benefits.....	103	7	110
21 Travel & Trans. of Persons...	17		17
22 Transportation of Things.....	15		15
23 Rent, Comm. & Utilities.....	20		20
24 Printing and Reproduction...	17		17
25 Other Services.....	103	5	108
26 Supplies and Materials.....	61	5	66
31 Equipment.....	55	1	56
Acquisitions for Collections	200	50	250
TOTAL	1,726	150	1,876
<u>Analysis of Increase</u>			
Necessary Pay.....		69	
Program Funds.....		81	

ABSTRACT - The National Portrait Gallery (NPG) was established in 1962 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. For FY 1977 an increase of 1 position and \$81,000 is required for: (1) Collections Acquisition--\$50,000 to augment the purchase fund and \$20,000 to add a curator of photography to develop collections, and (2) Building Management--\$11,000 for custodial supplies and services for the entire Fine Arts and Portrait Galleries Building. A further \$69,000 are needed for necessary pay for existing staff.

PROGRAM - The National Portrait Gallery is the only national museum that tells the history of the United States primarily in terms of the men and women who made that history. The portraits of these individuals are crucial documents of historical evidence and bear strong witness to the roles these people have played in the American experience.

The Gallery's activities include: (1) the expansion and care of its collections; (2) public education through display of the permanent collection and specially organized temporary exhibitions; (3) the preparation and national distribution of scholarly and popular publications related to these exhibitions; and (4) the compilation of a definitive catalogue of American portraits, constituting a unique information resource in the areas of American history and biography, art, and iconography.

During the first half of FY 1976, attendance at the Fine Arts and Portrait Galleries Building (FAPG) was 230,000, a 30 percent increase over the corresponding period in FY 1975. It is projected that attendance for the entire fiscal year will exceed the half million mark for the first time despite the building's off-the-Mall location.

An even wider audience is reached through the publications which accompany every major NPG exhibition. Furthermore, by May 1976 over 560,000 persons throughout the nation will have seen a traveling version of the 1973 exhibition, "The Black Presence in the Era of the American Revolution, 1770-1800." More than 150 institutions are now on a waiting list to receive this exhibition. A similar reception is anticipated for traveling versions of the Gallery's Bicentennial exhibitions.



National Portrait Gallery--American Renaissance room (recently renovated and opened to the public). The use of this elaborate room as a temporary exhibition gallery will place an additional burden on the Gallery's maintenance staff.

During FY 1975 and the first half of FY 1976, 132 portraits were added to the collection. Of this total, 103 were purchased including an important, but little known, miniature of Abraham Lincoln, painted from life in Springfield, Illinois, in August 1860; the only known likeness of Daniel Shays (a unique impression of a metal-cut print made during his lifetime); and a 1933 oil of Amelia Earhart by Edith Scott. Among the gifts were a self-portrait of the great American 20th century painter Thomas Hart Benton (which was appraised at \$50,000) and portraits by Rembrandt Peale of George and Martha Washington (purchased by the donor for \$150,000).

From April 19 to November 17, 1975, the Gallery presented its second Bicentennial exhibition, "The Dye is Now Cast: The Road to American Independence, 1774-1776," consisting of 98 portraits and 154 associative objects borrowed from collections in the United States and abroad. A second major exhibit, "Portraits from The Americans: The Democratic Experience," opened November 14, and was the first to be installed in a third floor area which, after renovation, was opened to the public for the first time. Several smaller exhibitions were devoted to specific individuals, including John Brown, Abraham Lincoln, Thomas Wolfe, and Winston Churchill. Following the relighting of the galleries devoted to the permanent collection, selected Presidential portraits were rehung with associative materials as the first step in a program which will involve reinstallation of the entire collection in a similar fashion.

The Gallery's third Bicentennial exhibition, "Abroad in America: Visitors to the New Nation, 1776-1914," will be on view from April 9 to November 13, 1976. Other major exhibitions in 1976 will be "Christian Gullager: Portrait Painter to Federal America" (May 11-September 6) and a show of Wedgwood portrait medallions of Revolutionary War period figures opening in July.

JUSTIFICATION OF \$81,000 INCREASE:

Collections Acquisition - The Gallery requests an additional \$50,000 in FY 1977 to increase its budget for acquisitions to \$250,000. Of the Smithsonian museums which have come into being during the last decade, the NPG is the only one to have been established without a permanent collection. Although special temporary exhibitions, largely of borrowed objects, together with their accompanying publications, make an important contribution to the public, the National Portrait Gallery of the United States will never be worthy of its name until it has a permanent collection which is fully representative of the men and women who made this nation. During the past decade, the Gallery has made important strides toward this objective; but until it has funds adequate to purchase significant works which cannot be acquired by any other means, portraits such as the magnificent marble bust of Benjamin Franklin by Houdon, which recently sold at the Parke-Bernet for \$310,000, inevitably will find their way into other hands. The Gallery is making every effort to find donors for certain works and to persuade private owners to donate portraits as well as to raise funds from private sources, but an increased Federal appropriation is vital to its acquisition program.

Recent legislation has authorized the Gallery to acquire photographic collections including prints, photographs, films, and other likenesses. In testimony before Congress, the Smithsonian stated that it has become increasingly clear over the years that the NPG cannot fully perform its legislated functions, either in exhibition or research, without use of this medium. More than half of our national history has occurred since the invention of photography. Many Americans who should be represented in the Gallery are best portrayed by photographs, and some are portrayed only by photographs. As a center for the study of history through portraiture, resources in all media are essential. A curator of photography (\$20,000) is required to develop collections, perform research on them, and arrange exhibitions.

Building Management - The FAPG building services department requires an additional \$11,000 to meet custodial needs largely associated with steadily increasing numbers of visitors. The cost of custodial supplies (especially for plastic containers, oil-based

solvents and solutions, and paper products) and services (trash removal, cleaning of drapes and carpets, etc.) has risen significantly during FY 1975 and 1976. Use of the building, including its courtyard and lecture halls, has increased as well, requiring the purchase of greater quantities of custodial supplies. Even greater attendance is expected following the completion of construction of the F Street pedestrian mall this spring and the opening of METRO's Gallery Place station. These funds are essential to maintain acceptable standards of cleanliness.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

1975 Actual.....\$1,541,000
 1976 Estimate.....\$1,676,000
 1977 Estimate.....\$1,844,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>83</u>	<u>0</u>	<u>83</u>
11 Personnel Compensation.....	1,091	72	1,163
12 Personnel Benefits.....	95	6	101
21 Travel & Trans. of Persons...	18		18
22 Transportation of Things.....	5	10	15
23 Rent, Comm. & Utilities.....	14		14
24 Printing and Reproduction....	40		40
25 Other Services.....	225	-10	215
26 Supplies and Materials.....	60	10	70
31 Equipment.....	30	30	60
Acquisitions for Collections	93	50	143
41 Grants.....	5		5
TOTAL	<u>1,676</u>	<u>168</u>	<u>1,844</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		68	
Program Funds.....		100	

ABSTRACT - The Hirshhorn Museum and Sculpture Garden (HMSG) has attracted over 2,000,000 visitors to its galleries since opening in October 1974. The Museum is maintaining a full and balanced program of exhibitions, educational activities (including films and lectures), research, and curatorial and technical support including conservation, registration, and publications. The FY 1977 budget requires an additional \$100,000 for the following purposes: (1) Collections Acquisition--\$50,000 for the purchase of works of art; and (2) Building Management--\$50,000 for evening hours custodial services and building maintenance and custodial services, supplies, and equipment. An amount of \$68,000 is also sought for necessary pay for existing staff.

PROGRAM - A full range of museum activities, including curatorial, conservation, registration, exhibition, and loan activities, are made available to the public. Since the Inaugural Opening in October 1974, over 2,000,000 persons have visited the Museum and its Sculpture Garden through December 1975. Estimated public service statistics are shown in the following table:

	Estimated FY 1976	Estimated FY 1977
Museum Attendance	1,400,000	1,500,000
Docent Tours Conducted	3,200	3,800
Attendance	56,000	62,000
Number of Films & Lectures	154	160
Attendance	27,000	29,000
Major Exhibitions Scheduled	5	4
Other Exhibitions in Preparation	6	5
Conservation Laboratory		
Works Requiring Major Treatment	30	48
Works Requiring Minor Treatment	184	240

JUSTIFICATION OF \$100,000 INCREASE:

Collections Acquisition - For the visiting public, scholars, students, museum professionals, teachers, researchers, and art publishers, the IPISG is a major source of documentation and reference in the field of modern art. While the Hirshhorn collection forms a strong core of the Museum's holdings, it is essential that a continuing program of acquisitions by gift and purchase be pursued. This program has as one of its objectives the addition of works of art executed after 1966, which is the period subsequent to the acceptance of the Hirshhorn collection by the United States Government. Acquisitions are also necessary to fill gaps in the collection, to incorporate representative works of newly recognized artists, and to provide the source materials for research studies and frequently changing exhibits. While the Museum has been successful in attracting gifts--some 17 works of art were received during the past year--these gifts tend to be of works from earlier periods and reinforce the original holdings of the Museum. Increased acquisition funds are required in order to maintain the Museum's standing as a contemporary art museum covering the spectrum of both American and world art--a program that is not manageable at the current funding level. An additional \$50,000 are sought for this purpose.

Building Management - Special Bicentennial Program funds will enable this Museum to remain open in the evenings during the summer of 1976. These funds will not be available in FY 1977. An increase of \$20,000 is requested to fund temporary custodial jobs and to purchase supplies and materials needed to make summer evening visiting hours a permanent program. A further \$30,000 are required for such needs as equipment and gallery carpet replacement, regular cleaning of interior court windows, and lumber and paint supplies for carpentry and paint shops, all essential for building repair and maintenance. Rising prices and higher annual costs, as a result of heavier than expected public use of the Museum, further justify this requested increase. Included within the overall object class distribution are funding adjustments reflecting necessary pay for present staff and the costs of transportation of loan exhibitions.

FREER GALLERY OF ART

1975 Actual..... \$380,000
 1976 Estimate..... \$477,000
 1977 Estimate..... \$511,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	28	1	29
11 Personnel Compensation.....	375	30	405
12 Personnel Benefits.....	34	2	36
24 Printing and Reproduction....	2		2
25 Other Services.....	21		21
26 Supplies and Materials.....	24	1	25
31 Equipment.....	21	1	22
TOTAL	477	34	511
Analysis of Increase			
Necessary Pay.....		15	
Program Funds.....		19	

ABSTRACT - The Freer Gallery of Art has a continuing program to search for and acquire Far and Near Eastern works of art of the highest quality and to conserve, study, and display these objects as keys to understanding the civilizations that produced them. For FY 1977 an increase of 1 position and \$19,000 will be applied as follows: (1) Research--\$14,000 for a translator to meet a heavy volume of technical material, inscriptions, and publications to be translated; and (2) Building Management--\$5,000 for temporary staff, services and supplies required for building maintenance. An amount of \$15,000 is required for necessary pay for current staff.

PROGRAM - The Freer Gallery of Art houses one of the world's most distinguished collections of Far and Near Eastern art. Included in the collections are over 12,000 works of art from China, Japan, Korea, India, and the Near East. The collection covers paintings, sculptures, and other objects in stone, wood, lacquer, jade, pottery, porcelain, bronze, gold, silver, and Biblical manuscripts. Items not currently on exhibition and the library of 40,000 volumes are available to students and scholars and are used extensively.

As our nation completes its second century, it is imperative that its cultural institutions reflect carefully on past accomplishments and prepare for the coming century. During our third century, Americans must renew their efforts to understand better the various peoples and cultures of the world. Cultural exchanges between the United States and the nations of the Far and Near East have already greatly expanded. At the Freer Gallery of Art there has been a corresponding increase in requests for assistance from the public and scholars, both at home and abroad, for docent service, for lectures, and for general information, as shown in the following table.

	July - December	
	1974	1975
Visitors in the offices	1,318	1,514
Visitors submitting objects for examination	296	346
Objects and photos examined	2,686	3,438
Visitors examining objects in storage	217	248
Inscriptions translated	69	111
Docent Tours		
Visitors in galleries	1,005	1,536
Visitors in storage areas	79	205

The number of inscriptions translated refers only to those provided visitors bringing objects into the Gallery for examination. A considerably larger number of inscriptions are translated by curators and librarians in response to inquiries by mail.

A special Bicentennial exhibition, "Arts of Asia at the Time of American Independence," opened December 15, 1975. A fully illustrated catalogue provides an introduction to more than 90 objects dating from the 18th century which were made in the Far and the Near East. A second exhibition, "American Art: The Vision of Charles Lang Freer," will open in August, 1976. Many items included in these exhibitions have never been shown; all have been thoroughly examined by the Freer technical laboratory staff.

Several essential pieces of scientific equipment recently acquired by the Gallery significantly improve the research and conservation activities of the technical laboratory. A teletypewriter, which serves as a computer terminal and is used with a time-share computer, enables laboratory technicians to perform complicated mathematical and statistical analyses. A portable x-ray unit replaces obsolete equipment and permits the laboratory to obtain much needed x-rays of such fragile materials as paintings, pottery, wooden sculpture, and lacquer. A camera used for x-ray diffraction allows for timely identification of microscopic samples from art objects. Two other important photographic attachments enable laboratory technicians to take 35-mm photomicrographs and to obtain images at unusually high magnification.

The FY 1977 budget for the Freer reflects the need to support its public service and research programs and the demands of building cleaning and maintenance.

JUSTIFICATION OF \$19,000 INCREASE:

Research - The number of actual objects and photographs of objects submitted by the public has increased very substantially. Furthermore, the number and the availability of publications in Far Eastern languages has grown to the point that the staff can no longer provide the required number of abstracts or full translations. A full-time translator is needed. The translator will assist the public, curatorial, scientific, and library staff in translating into English original source materials, such as ancient Chinese and Japanese inscriptions on art objects, important articles in Japanese and Chinese publications, inscriptions on animal bones, etc. The subject matter is often unusual technical material in the fields of art, history, religion, and archeology. The vocabulary required is so peculiar to the subject of a given translation that the expressions, terms, and symbols used are not usually found in normal information media. An amount of \$14,000 is required for the translator.

Building Management - Proper museum management and basic health standards demand that the Gallery provide clean public areas including restroom facilities to visitors every day that the Gallery is open. The present custodial staff of six persons is unable to cope with peak visitor periods such as when new exhibits are opened. Restroom maintenance on weekends is a particular problem. An amount of \$5,000 is required to employ temporary personnel and to purchase supplies and equipment for building maintenance. The costs of such necessary items continue to rise.

ARCHIVES OF AMERICAN ART

1975 Actual.....\$279,000
 1976 Estimate.....\$334,000
 1977 Estimate.....\$369,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	15	1	16
11 Personnel Compensation.....	239	24	263
12 Personnel Benefits.....	21	2	23
21 Travel & Trans. of Persons...	5	2	7
22 Transportation of Things.....	6		6
23 Rent, Comm. & Utilities.....	31	7	38
24 Printing and Reproduction....	14		14
25 Other Services.....	5		5
26 Supplies and Materials.....	6		6
31 Equipment.....	7		7
TOTAL	334	35	369
Analysis of Increase			
Necessary Pay.....		11	
Other Uncontrollable.....		2	
Program Funds.....		22	

ABSTRACT - The Archives of American Art (AAA) serves the research needs of private individuals, universities, museums, and other cultural institutions. It assembles, preserves, and makes available to students and scholars the documentary resources required for research and publication on American art history. Through microfilm and a network of regional centers, the Archives gives access to its holdings on a national basis. An FY 1977 increase of 1 position and \$22,000 is requested for Collections Acquisition to establish a mid-Atlantic region collecting program and to fund travel and other office expenses. An additional \$11,000 are needed for necessary pay for existing staff and \$2,000 to fund other uncontrollable items (page A-57).

PROGRAM - The Archives gathers and preserves the personal and official records of artists, dealers, critics, and art organizations and, thereby, encourages scholarship by giving researchers access to the primary documentation they need. These collections of papers, which range in time from the 18th century to the present and reflect art activities in every state, are sought out, organized, catalogued, microfilmed, and made available to qualified scholars. Several million items are now at hand in the form of letters, journals, sketchbooks, business papers, photographs, and scarce publications. In 1975, 285 new collections of papers were received, 45 more than the previous year. This material is used intensively by Smithsonian staff and fellows and by graduate students, art historians, and curators across the country. In FY 1975, there were 1,750 research visits to all Archives offices and 460 rolls of microfilm were sent out through interlibrary loan, representing in both instances, a 35 percent increase over a two-year period. Over the past few years, several hundred completed books, articles, catalogues, and dissertations have acknowledged the AAA as a source of information.

"From Reliable Sources," the first of a series of public exhibitions of photographs and documents, inaugurated a new Archives program in FY 1975. The success of this show and its attendant catalogue led to the organizing of a traveling exhibition of representative Archives holdings to be shown in Dallas, San Francisco, and Cleveland during FY 1976. Additional displays of Archives material will be arranged in connection with the Bicentennial exhibitions of the Detroit Institute of Arts, the Cleveland Museum of

Art, the Toledo Museum of Art, and the De Young Museum in San Francisco.

The processing and chief reference center of the Archives is located in Washington, D.C. with other centers in Boston, New York, Detroit, and San Francisco. Each office is responsible for acquiring further collections of papers and for administering complete sets of microfilm containing all documents offered by the Archives. The Archives anticipates income from private funds of about \$170,000 in FY 1976.

The Archives also has an important oral history program, begun in 1959, comprising today more than 1,400 transcripts of interviews with artists, dealers, collectors, and administrators. This program is subsidized by private funds, a part of them in the form of foundation grants generated by the Archives. Private funds are also used for the publication of the Archives of American Art Journal, a quarterly periodical based on and publicizing Archives resources.

JUSTIFICATION OF \$22,000 INCREASE (Collections Acquisition) - The Washington, D.C. office of the Archives, which has served for six years as the chief processing (and most active) reference center, lacks an area director responsible for finding and acquiring collections in the lower-middle Atlantic region. The experience of the past few years indicates the existence of many important collections of papers in and around Washington as well as in Maryland, Delaware, Virginia, West Virginia, North Carolina, and even farther afield. These should be systematically sought out and acquired or filmed before they are lost or destroyed. The Archives therefore requests one position and \$15,000 to engage a qualified staff member, thereby establishing the Washington office as a collecting center parallel to the regional offices in Boston, New York, Detroit, and San Francisco. A further \$7,000 are required to provide more adequate travel funding in all regional areas (to locate collections, establish personal contacts with prospective donors, and to acquire and transport valuable materials) and to fund other office costs. Rent and communication costs have increased dramatically over the past two years. Some Archives offices, presently existing in rent-free museum space, are being requested to absorb some maintenance expenses. This, coupled with increased use and expansion of Archives offices, leads to rising costs.

COOPER-HEWITT MUSEUM OF DECORATIVE ARTS AND DESIGN

1975 Actual.....\$209,000
 1976 Estimate.....\$276,000
 1977 Estimate.....\$359,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	15	4	19
11 Personnel Compensation.....	203	52	255
12 Personnel Benefits.....	18	5	23
21 Travel & Trans. of Persons...	2		2
22 Transportation of Things.....	1		1
23 Rent, Comm. & Utilities.....	39	14	53
24 Printing and Reproduction...	4		4
25 Other Services.....	2	2	4
26 Supplies and Materials.....	4	5	9
31 Equipment.....	3	5	8
TOTAL	276	83	359
<u>Analysis of Increase</u>			
Necessary Pay.....		11	
Other Uncontrollable.....		14	
Program Funds.....		58	

ABSTRACT - The Cooper-Hewitt Museum of Decorative Arts and Design is one of the world's most distinguished repositories of decorative arts and design. The collection currently numbers over 100,000 objects ranging from textiles, drawings, wallpaper, furniture, and jewelry to glass, ceramics, and silver. In FY 1977 an increase of 4 positions and \$58,000 is sought for: (1) Conservation--a conservator (\$18,000) to take care of the textile collections; and (2) Buildings Management--3 positions (a carpenter, groundskeeper, and laborer--\$28,000) and \$12,000 for program support for the Museum when opened to the public. An amount of \$11,000 is sought for necessary pay for existing staff and an amount of \$14,000 for utility rate increases; both are justified in the Uncontrollable Section (page A-5).

PROGRAM - The Cooper-Hewitt Museum in New York City is the only museum in the United States devoted exclusively to the study of historical and contemporary design. The collections currently span 3,000 years and include over 100,000 objects. Its textile collection is internationally known, its drawing collection is the largest in the United States, and its wallpaper collection is the largest in the world. In addition, the Museum contains fine examples of furniture, glass, ceramics, silver, metalwork, lighting fixtures, jewelry, and other decorative objects. In recent years, categories of architecture, urban planning, and industrial design have been added. The collection is supported by one of the finest and most complete decorative arts and design libraries in the country. The library encompasses a reference library, a rare book library (25,000 volumes), picture archives of over one and a half million items, and special archives on color and light, patterns, materials, symbols, sensory and technological data, interiors, advertising, design theses, and typography.

Renovation was begun in the summer of 1974 on the Andrew Carnegie Mansion--home of the Cooper-Hewitt Museum--at 91st Street and Fifth Avenue. Work is scheduled for completion early in 1976 at which time the Museum will install its collections, library, and exhibitions. In conjunction with the main exhibitions, the Museum is organizing satellite exhibitions in museums, libraries, and universities in New York--lending collections which are particularly suitable to those institutions.

In FY 1975, the Museum organized the first full-scale exhibition of Winslow Homer drawings, water colors, and paintings to appear in Europe. The Cooper-Hewitt participated in exhibitions at 20 museums and galleries. Its exhibition "Immovable Objects" invited visitors to view objects in Lower Manhattan--buildings, parks, street furniture, etc., either for their intrinsic architectural quality or for their effect on the design of the city. Catalogues were published to serve as guides to exhibits and as permanent references for research. The Museum accepted 886 gifts for the collections and over 39,000 items for the library.

As explained in the FY 1976 budget justification, the Smithsonian has adopted the principle that the program activities of the Cooper-Hewitt Museum should be operated with non-appropriated funds, and that appropriated funds should, insofar as possible, be limited to the protection and preservation of the collections and property. The FY 1977 budget request for an increase of \$58,000 conforms to this principle.

JUSTIFICATION OF \$58,000 INCREASE:

Conservation - The Museum has one of the great textile collections in the world, with approximately 30,000 examples ranging from a Chinese bonnet and mitts which are over 3,000 years old to very contemporary material. A textile conservation laboratory is being installed with private funds to provide facilities for cleaning, repairing, and studying these materials. A textile conservator is now requested to head the laboratory; someone who is trained in the field and who can work to preserve this important collection for future generations. One position and \$18,000 are requested for this purpose.

Buildings Management - The current building renovation and opening exhibit plans (both financed with private funds) are scheduled to permit a public opening of the Museum in its Carnegie Mansion facilities this year. The attendant excitement and enthusiasm in New York and in the museum world will generate a large visitation and a resulting building maintenance workload in excess of that for which the Museum is currently budgeted. The FY 1976 appropriation increase which Congress granted for this purpose (four positions and \$40,000) has gone far toward meeting the need. A further three positions and \$40,000 will permit the Museum to handle its building management workload with an adequate staff and other object class funds. In total, this staff will have the responsibility for proper care of some 32,000 square feet of building space and 46,000 square feet of outdoor garden space. The requested funding will provide for a carpenter, a groundskeeper, and a laborer (\$28,000) and \$12,000 for the purchase of building and grounds maintenance supplies and materials.

OFFICE OF THE ASSISTANT SECRETARY FOR PUBLIC SERVICE

1975 Actual.....\$192,000
 1976 Estimate.....\$191,000
 1977 Estimate.....\$205,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	8	0	8
11 Personnel Compensation.....	169	3	172
12 Personnel Benefits.....	15		15
21 Travel & Trans. of Persons...	4		4
25 Other Services.....		7	7
26 Supplies and Materials.....	2		2
31 Equipment.....	1	4	5
TOTAL	191	14	205
<u>Analysis of Increase</u>			
Necessary Pay.....		3	
Program Funds.....		11	

ABSTRACT - The Office of the Assistant Secretary for Public Service guides and supports the public service units in the development of programs to advance the Institution's objectives in education and information. A program increase in the amount of \$11,000 is requested in FY 1977 to provide information services. Funds in the amount of \$3,000 are sought for necessary pay for current staff.

PROGRAM - The primary functions of the Office of Public Service are to stimulate, coordinate, and supervise the steadily increasing activities of the Smithsonian's educational and public service components. These include the unique experimental efforts of the Anacostia Neighborhood Museum; the many-faceted work of the Division of Performing Arts in synthesizing and presenting to the American public across the Nation the historical and continuing development of the American aesthetic experience; the programs of the Office of Elementary and Secondary Education to make the Smithsonian's facilities and collections accessible and pertinent to visiting school children; the development of interdisciplinary symposia and seminars to enable leading scholars and specialists from the world community to examine themes of common concern conducted by the Office of Smithsonian Symposia and Seminars; and the dissemination of Smithsonian research and interests through the Smithsonian Press and the Smithsonian Magazine. Also included are the organization and conduct of meaningful adult and teenage educational presentations by the Smithsonian Resident Associates; the development and coordination of a program utilizing the services of volunteers to provide information to the public (in person, by phone, by mail) and administration of a placement service of volunteer assistants throughout the Institution by the Visitors Information and Associates Reception Center; and an active public affairs operation including television, film, and radio programming and audiovisual educational materials, dedicated to keeping Americans currently informed of the educational programs and exhibits available to them at or through the facilities of the Smithsonian Institution.

JUSTIFICATION OF \$11,000 INCREASE (Education and Public Orientation) - In FY 1976 this Office has assumed direct responsibility for the Visitors Information and Associates Reception Center. In FY 1975, this Center used its small staff of three full-time and five part-time employees and a core of 500 dedicated volunteers to: reply to 167,000 telephone inquiries and 33,000 requests for information by mail; provide immediate information to more than 13,000,000 visitors; and perform a variety of clerical,

administrative, and professional duties throughout the Institution. During this period, volunteer services amounted to a total of 284,400 hours with estimated savings to the Institution of \$2,220,000. While the major portion of support for the Reception Center is provided through private funding and volunteer services, a small amount of Federal funding can substantially enhance the orientation services offered to visitors. An increase of \$11,000 in FY 1977 will be used for the production and update of visual aids, such as slide presentations, designed to acquaint visitors with the locations and offerings of Smithsonian museums and galleries. In addition, it would be used for the development and update of foreign-language tape systems to be installed at entrances to all the Mall museums.

ANACOSTIA NEIGHBORHOOD MUSEUM

1975 Actual.....\$403,000
 1976 Estimate.....\$479,000
 1977 Estimate.....\$557,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	21	0	21
11 Personnel Compensation.....	298	49	347
12 Personnel Benefits.....	28	4	32
21 Travel & Trans. of Persons...	3		3
23 Rent, Comm. & Utilities.....	50	9	59
24 Printing and Reproduction....	28		28
25 Other Services.....	39	3	42
26 Supplies and Materials.....	27	13	40
31 Equipment.....	6		6
TOTAL	479	78	557
<u>Analysis of Increase</u>			
Necessary Pay.....		21	
Other Uncontrollable.....		9	
Program Funds.....		48	

ABSTRACT - One of the basic premises on which the Anacostia Neighborhood Museum was established was to provide the opportunity and the resource for a continuing museum experience for community groups and individuals who might not otherwise realize such an opportunity. Through a carefully researched educational program of exhibits and activities especially relevant to the community and its needs, Anacostia has become recognized as a center of black history and culture. Since its opening in September 1967, it has been visited by more than 500,000 people. The FY 1977 budget requires a further \$48,000 to sustain the development of the minority training exhibits laboratory. Additional funding of \$21,000 for necessary pay and \$9,000 for utility rate increases are justified in the Uncontrollable Section (page A-5).

PROGRAM - The Anacostia Neighborhood Museum conducts a research program not only to support exhibits design and production but also, through its oral history program, to preserve the life styles and the cultural heritage of a community. Frequently the data resulting from staff research is published as catalogues to accompany exhibitions and as teacher aids. This program has resulted in the establishment of a bi-racial group, The Anacostia Historical Society, which through its volunteer efforts and community involvement, has made significant contributions to the oral history program as well as other research activities.

During the past year, substantial progress has been made in the completion and equipping of the exhibits laboratory to provide capability for the training of minorities in exhibits design and production and for the fabrication and maintenance of innovative, quality exhibits. A Bicentennial exhibition entitled "Black Woman" is under construction for installation at the Anacostia Museum with a traveling version being readied for circulation by the Smithsonian Institution Traveling Exhibition Service (SITES). Other exhibitions in various stages of production are "The Frederick Douglass Years" and "John Robinson Retrospective."

Anacostia's education department actively supports teachers and students through on-site and outreach programs and through these efforts has created a network of Anacostia teachers who now serve as liaison with the Museum. Teacher workshops and seminars are

conducted by the staff and work continues on the development of educational aids and materials. As a result of the cooperative efforts of the education staff, neighborhood teachers, and residents, Anacostia has published A Walk Through "Old" Anacostia, written especially for children, which serves as a guide for a walking tour of the historical area of Anacostia.

JUSTIFICATION OF \$48,000 INCREASE (Education and Exhibitions) - With the completion of the exhibits laboratory, the Anacostia Neighborhood Museum will administer a program to train minorities in exhibits techniques including all aspects of design, production, installation, maintenance, and refurbishing. It will also have an equipped facility with the capability to design and produce better quality exhibits for the Museum and for other purposes. Following the conclusion of the Bicentennial Year with its emphasis on exhibitions for that purpose, Anacostia will resume its program of specialized exhibits which are pertinent to the Museum and its mission. It is anticipated that many of these exhibits will be duplicated in traveling versions for circulation by SITES. Two exhibits being planned are "Ancient Africa" and "King--At the Mountain Top." In addition, in order to meet the increasing outside interest generated in this new exhibit training/production concept, workshops and seminars will be conducted in the laboratory to inform museum officials and educators and to supplement the training programs of the Smithsonian and other museums. While the training program will emphasize on-the-job training in which the Anacostia exhibits staff will participate, personnel with specialized skills in exhibits techniques and lecturers with expertise on specific subjects will be required on an intermittent, part-time basis to supplement the small staff. For this purpose an increase in the amount of \$35,000 is requested. An amount of \$13,000 is requested to purchase supplies and materials for exhibits production.

INTERNATIONAL EXCHANGE SERVICE

1975 Actual.....\$194,000
 1976 Estimate.....\$217,000
 1977 Estimate.....\$219,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	9	0	9
11 Personnel Compensation.....	117	2	119
12 Personnel Benefits.....	10		10
22 Transportation of Things.....	78		78
26 Supplies and Materials.....	11		11
31 Equipment.....	1		1
TOTAL	217	2	219
<u>Analysis of Increase</u>			
Necessary Pay.....		2	
Program Funds.....		0	

ABSTRACT - Through the International Exchange Service, public and private institutions in the United States exchange publications with organizations in other countries. This includes the exchange of official United States publications, including the daily issues of the Federal Register and the Congressional Record, and the weekly issues of the U.S. Patent Specifications, as well as private publications such as medical and dental texts. No program increase is sought for FY 1977. Funds in the amount of \$2,000 are requested for necessary pay for existing staff.

PROGRAM - In 1849 the Smithsonian Institution established a system for the exchange of its publications with the learned societies of other countries. This program was so successful that later it was extended to other American organizations. The Exchange's responsibilities were formalized when the Brussels Convention of 1886 was adopted by the United States, and the Smithsonian Institution became the official exchange bureau in the United States for the international exchange of literary, scientific, and cultural publications. In addition, a Resolution to Provide for the Exchange of Certain Public Documents (14 Stat. 573, as amended) provides that the exchange of official United States publications shall be made through the Smithsonian Institution. In FY 1975, approximately 2.5 million publications were transmitted to over 100 countries for exchange documents. In addition to official United States publications, this outflow included publications from about 250 organizations representing every state in the Union. Approximately 100,000 packages were received from foreign institutions for distribution in the United States.

DIVISION OF PERFORMING ARTS

1975 Actual.....\$482,000
 1976 Estimate.....\$411,000
 1977 Estimate.....\$447,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	11	0	11
11 Personnel Compensation.....	260	24	284
12 Personnel Benefits.....	22	1	23
21 Travel & Trans. of Persons...	18	1	19
22 Transportation of Things.....	2		2
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction....	5	5	10
25 Other Services.....	76	4	80
26 Supplies and Materials.....	12		12
31 Equipment.....	6	1	7
TOTAL	411	36	447
<u>Analysis of Increase</u>			
Necessary Pay.....		10	
Program Funds.....		26	

ABSTRACT - The Division of Performing Arts (DPA) has primary responsibility for the production and presentation of live performance events of the Smithsonian Institution and its museums, with emphasis on programs that relate to and enhance museum collections and that deal with national aesthetic expressions.

The FY 1977 budget seeks a program increase of \$26,000 for: (1) Research--\$21,000 to support a program in the oral history of jazz in conjunction with the National Endowment for the Arts; and (2) Education--\$5,000 to help meet printing costs. An amount of \$10,000 is requested for necessary pay for current staff.

PROGRAM - DPA is the primary planning, producing, and supervising organization in the Smithsonian for all public performances. Its Federal appropriation provides for central administration and direction of these activities and funds for some program development. Most of the Division's activities are produced with other appropriated and non-appropriated funds. Upon the conclusion of the Bicentennial Festival of American Folklife, which will culminate ten years of the Festival experience, DPA will restructure its program, providing greater emphasis on those activities that most closely relate to the Division's mission.

With the advent of a National Associates program came a new opportunity to combine a touring performance program and a nationwide audience. The Division will be selecting and producing performance events, presenting them at Smithsonian facilities in Washington, then touring them to audiences around the country.

The 1975-1976 Winter Program's series of events at the Institution has been the most successful ever. Twenty thousand people will see and hear programs ranging from American Jazz to Burmese dancing--all events related to the Smithsonian and its collections. The Division's recording program, begun with the "Smithsonian Collection of Classic Jazz," is gathering momentum with four more releases of jazz, ragtime, and music from America's early history. Another release is scheduled to be available in the spring of 1976.

Renovations to the Arts and Industries Building necessitated the temporary closing of DPA's popular Puppet Theatre. With the reopening of the building in May 1976, DPA will again begin operations in the Theatre with a reconstruction of a play originally produced at America's Centennial celebration. Plans for 1977 call for a restructuring of the Puppet Theatre operation to include an entire program of events for children, to encourage them to visit the museums and to make their stay more exciting. The carousel and old-time popcorn wagons will continue operations. A major publication program is anticipated in the wake of the Bicentennial Festival, making information developed by the field program and the event itself available to the widest possible audience. This activity is augmented by DPA's education program which is developing teaching aids and other materials to help make the information more interesting and useful.

For ten years the Smithsonian has presented a Festival of American Folklife. The Bicentennial event--lasting for twelve weeks and involving a vast segment of the American people--cannot be continued. Fiscal and scholarly resources have been taxed to produce the very special Bicentennial program. Ethnic communities, regional groups, native American Indian tribes, and labor unions have--through their involvement with the Festival--rediscovered and become vitally interested in their traditional heritage.

The Smithsonian has sought ways to continue its service to the above-mentioned constituencies on a modest basis. Our plan is to continue research into folk cultural forms, the product of which benefits the community involved, and to present a series of "mini-festivals."

The "mini-festival" concept entails the production of a series of several short four- or five-day events spaced one month apart in the Mall area contiguous to the Institution's buildings, each of which would feature a major portion of the Bicentennial Festival--i.e., Old Ways in the New World, Memorial weekend; Native Americans, August 1; and Working Americans, Labor Day weekend. In this way, a smaller site with correspondingly less manpower, service, and other requirements provides an economical, yet satisfactory, frame for the presentations. Impact on the Division's resources is also reduced substantially.

By producing these "mini-festivals," the Institution continues a tradition of one of its most popular events, an event that is unique in the United States for its presentation of American folk traditions in an ordered, scholarly, and entertaining way, and at the same time provides summer-long activity for visitors and residents in the Washington area.

JUSTIFICATION OF \$26,000 INCREASE (Research and Education) - Two years ago, DPA agreed with the National Endowment for the Arts to undertake a program to preserve the history of the development of jazz in America. Since most of the information exists only in the memories of musicians who participated in its development and since those musicians are becoming old, the country was in danger of losing a most valuable heritage. The Endowment in the past funded most of this program, but has requested that DPA assume a more active role in this regard. Funding (\$21,000) is requested specifically to pay a temporary salary for a program coordinator and to fund payments for interviewers and musicians to record their recollections of the earliest days of jazz. Time is of the essence in this program. Much of the history is already lost to future generations and more will be lost each year. This funding will be used to augment that provided by the Endowment, enabling an acceleration of the program to an acceptable level. An increase in printing funds (\$5,000) is also requested as essential to the preparation and making available of educational materials in support of this and other Division programs.

OFFICE OF PUBLIC AFFAIRS

1975 Actual.....\$344,000
 1976 Estimate.....\$347,000
 1977 Estimate.....\$388,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	16	0	16
11 Personnel Compensation.....	261	11	272
12 Personnel Benefits.....	23	1	24
21 Travel & Trans. of Persons...	1		1
24 Printing and Reproduction....	53	15	68
25 Other Services.....	6	10	16
26 Supplies and Materials.....	2	3	5
31 Equipment.....	1	1	2
TOTAL	347	41	388
<u>Analysis of Increase</u>			
Necessary Pay.....		12	
Program Funds.....		29	

ABSTRACT - The Office of Public Affairs is responsible for the communication of information about the Smithsonian and its programs to the general public and specialized groups through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, filmstrips, general information and visitor orientation pamphlets, and other items. In FY 1977 an amount of \$29,000 is requested to cover the increased costs associated with the printing and distribution of informational publications. An additional amount of \$12,000 is sought for necessary pay for current staff.

PROGRAM - The Office of Public Affairs serves millions of museum and gallery visitors annually as well as the general public through the communication of factual and educational data about the Smithsonian and its programs. A wide array of communications media is used: newspapers, wire services, popular and scholarly periodicals, radio and television, documentary films, recorded phone messages such as Dial-A-Museum and Dial-A-Phenomenon, and general information pamphlets and publications. Each year approximately 1.3 million brochures describing the Smithsonian's major attractions are printed in English, French, German, Japanese, and Spanish language versions and distributed without charge to visitor orientation centers, Congressional offices, and travel bureaus. Other informational publications include a calendar of Smithsonian-wide events; a staff newspaper, The Torch; and Research Reports, a quarterly publication which reviews significant current research of the Smithsonian's scientists.

In addition, this office responds to thousands of requests for interviews, research data, photographs, publications, and reference materials. Assistance often is rendered in the preparation of articles and graphics for school textbooks, encyclopedias, and special publications on subjects in which the Smithsonian has demonstrated a special competence. The Free Film Theater, a program offering documentary films to the public on a regularly scheduled basis, is also administered by this Office.

The still-developing medium of telecommunications has provided the Smithsonian Institution with a new potential for an even wider diffusion of knowledge about the Institution and its diverse programs and research. "Radio Smithsonian," aired weekly in the Washington, D.C. area, presents interviews with staff specialists, music based on the collections, and other topics of general interest. Pilot programs are now being

recorded for new radio features to be introduced in FY 1977. In the winter of 1974-1975, three successful television programs were shown on national television. Discussions are now underway regarding a new prime-time series focussing on the Smithsonian which would be broadcast on the public television network. It also is planned that educational films and filmstrips as well as visitor orientation programs will be developed in the years immediately ahead.

The Office of Public Affairs also administers the Office of Special Events, which assists with exhibition openings, seminars, meetings, and special activities held in Smithsonian facilities in Washington, D.C.

JUSTIFICATION OF \$29,000 INCREASE (Education and Public Orientation) - Through its various publications, the Smithsonian seeks to disseminate to as wide an audience as possible information concerning significant current research, special performances, new exhibits, as well as information which will assist in visitor orientation and understanding. The cost of printing and distributing these publications has risen sharply in the last year. For example, the cost of printing one brochure is expected to increase this year from 3-1/2¢ to 5¢ for a total cost increase of almost \$20,000.

Distribution costs, of course, continue to rise with each postage increase. A major concern of the Office of Public Affairs is the development and maintenance of improved, specialized mailing lists. The master Smithsonian mailing lists cannot be revised as often as is necessary, and consequently contribute to high distribution costs through duplications and outdated entries.

In FY 1977 an increase of \$29,000 is requested for the following purposes: (1) \$15,000 to assist in covering the rising costs of printing and reproduction; (2) \$4,000 for necessary supplies, materials, and equipment; and (3) \$10,000 to cover the increased costs of contracts for mailing services and to fund computer costs associated with updating the master mailing lists.

SMITHSONIAN INSTITUTION PRESS

1975 Actual.....\$586,000
 1976 Estimate.....\$643,000
 1977 Estimate.....\$679,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	27	1	28
11 Personnel Compensation.....	511	33	544
12 Personnel Benefits.....	46	3	49
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction...	66		66
25 Other Services.....	6		6
26 Supplies and Materials.....	4		4
31 Equipment.....	5		5
TOTAL	643	36	679
<u>Analysis of Increase</u>			
Necessary Pay.....		19	
Program Funds.....		17	

ABSTRACT - The Smithsonian Institution Press is responsible for the editing, design, production, and distribution of printed material produced by historians, scientists, and curators. Included in this work are multi-volume monographs, 8 scientific series, exhibit catalogues for the several museums, education pamphlets, and information leaflets. An increase of \$17,000 is requested to help fund 1 position for program planning. Necessary pay in the amount of \$19,000 is also requested for existing staff.

PROGRAM - Press publication activity is a fundamental extension of the work of the Smithsonian's basic research laboratories. Necessary for ecological and agricultural advancement and other basic and applied studies by researchers, these reports are distributed to major libraries and scientific institutions in all 50 states and many foreign countries. The Press edits and designs manuscripts and issues contracts for the printing of exhibit catalogues, education pamphlets, and informative leaflets for the many millions of visitors to the Smithsonian each year, as well as for the growing number of outreach programs such as the Smithsonian Institution Traveling Exhibition Service, Division of Performing Arts, and Office of Elementary and Secondary Education programs which are increasingly serving to bring information on Smithsonian collections and research activities to communities and educational groups across the Nation.

The Press reviews each manuscript submission for editorial content and completeness, quality of typing, illustrations, etc. before acceptance. Inadequately prepared manuscripts (i.e., those that would be too costly to edit or manufacture) are not accepted for publication. Finally, the Press furnishes the Institution with a variety of necessary manuals, reports, and directories, including copies of Congressional materials and reports from Government agencies.

Press publications in FY 1975 included nine trade books, 16 art and exhibition catalogues, 84 booklets, pamphlets, and folders, plus 58 monographs published in the scientific and technical series. These publications received favorable critical review and the Press again received awards for editing and design.

JUSTIFICATION OF \$17,000 INCREASE (Printing and Reproduction) - The number of offices and bureaus of the Smithsonian which rely on the Press for publishing services has grown

from 24 in 1966 to a total of 71 in 1976. This increase in the demand for Press services is a strong indicator of the Smithsonian's growing role in the diffusion of knowledge. These demands, however, have taxed the management, editorial, design, and fulfillment sections of the Press to the point that the current small staffs have difficulty keeping pace with program needs.

A recent careful study of the overall publishing needs of the Institution has resulted in a reorganization of the Press to utilize existing staff better and to provide a broader compass of service and control. A staff member at the deputy level is essential to the fulfillment of this reorganization plan. This person will be responsible for the following important duties not now adequately represented in the Press: long-range planning with the bureaus and offices to identify future publication needs and to program their implementation; development of orderly production practices; directing economic and effective arrangements for inventory control; directing and monitoring the performance of Press editing, design, and dissemination services to serve bureaus and offices more responsively; and other important assignments. The requested additional funding of \$17,000 for this position will cover about one-half of the anticipated cost. The remaining cost will be available from the present base through savings achieved by filling vacancies at a lower grade level.

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
AND
OFFICE OF MUSEUM PROGRAMS

1975 Actual.....\$ 714,000
1976 Estimate.....\$1,010,000
1977 Estimate.....\$1,176,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	63	0	63
11 Personnel Compensation.....	744	38	782
12 Personnel Benefits.....	67	3	70
21 Travel & Trans. of Persons...	12		12
22 Transportation of Things.....	8		8
23 Rent, Comm. & Utilities.....	15		15
24 Printing and Reproduction...	12		12
25 Other Services.....	76	125	201
26 Supplies and Materials.....	36		36
31 Equipment.....	40		40
TOTAL	1,010	166	1,176
<u>Analysis of Increase</u>			
Necessary Pay.....		41	
Program Funds.....		125	

ABSTRACT - The Assistant Secretary for Museum Programs oversees, reviews, and supports the Institution's museum and exhibition activities, and assists and advises the Secretary on programs and special studies designed to improve those activities. This Office provides advice, technical assistance, and documentary resources to other museums, undertakes studies on the effectiveness of museums as learning environments and on visitor reaction to exhibits, develops training workshops for museum personnel, and disseminates technical information on museum practices and techniques. The Office also oversees the operations of the South Group Buildings Manager who is responsible for custodial maintenance of the Arts and Industries Building and the Smithsonian Institution Building.

An increase of \$125,000 in program funds is requested to conduct a collections management study for the Institution, leading to preparation of a detailed plan for the most efficient and scientifically-sound program for registration, handling, preservation, care, storage and cataloguing of the Institution's collections, to be applied in existing museums on the Mall and in the proposed Museum Support Facility. No additional personnel are requested. Funding of \$41,000 is required for necessary pay for existing staff.

PROGRAM - 1. Assistant Secretary for Museum Programs: With 18 positions and \$402,000 as base resources, the Office of the Assistant Secretary for Museum Programs administers, oversees, reviews, and supports the Office of Museum Programs, Office of the Registrar, Conservation-Analytical Laboratory, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Institution Archives, National Museum Act, Smithsonian Institution Traveling Exhibition Service, and South Group Buildings Manager. The Office cooperates with museum professionals and museum organizations, nationally and abroad, to improve the effectiveness of museums in the performance of scholarly and public educational functions. The Office is responsible, through coordination of these and related functions, for the development of improved programs related to training in museology and museography and for development of new techniques in museum administration and practice.

This Office maintains and directly oversees three major and closely related programs responsible for training museum personnel, dissemination of technical museum information, and investigation of museum exhibits and operations and their relationships to the museum audience.

The Museum Workshop Program offers workshops, seminars, and training courses to any individual gainfully employed by a museum. Workshops are taught primarily by Smithsonian staff and each is devoted to a specific museum method or problem. In FY 1975, 13 seminars, with 240 participants, were offered. For FY 1976, the number of seminars will be increased to 16 and the number of participants to approximately 260. Seminar topics will include exhibits design, label writing, museum lighting, training museum docents, museum photography, insurance, museum classes, crafts, seminars, and others. A special training program with emphasis on the proper methods of care of ethnographic collections will be prepared for the Native American community in cooperation with the National Museum of Natural History. For FY 1977 the number of seminars will be increased to 24 and will involve an estimated 360 participants. Course content will include museum bylaws, conservation through preventive care of collections, museum-school relationships, development and maintenance of collections, museum publications and public information programs, and others.

The Conservation Information Program engages in research, writes, and produces in cooperation with other Smithsonian units audiovisual informational programs, in the form of videotapes and slide-audiocassettes, on museum practices and techniques, with emphasis on museum conservation, for free loan to other museums, organizations, and individuals. In FY 1975, three new programs were produced, dealing with the care and exhibition of textiles and the mending of pottery, bringing to seven the total number available for distribution. A brochure describing the series was sent to museums throughout the country. A total of 129 organizations booked the programs for approximately 650 individual showings. During the same fiscal year, the unit completed videotaping for distribution the series of 80 lectures prepared by the Conservation-Analytical Laboratory on the chemical and physical principles involved in museum conservation. In FY 1976, five new slide programs will be completed covering prevention of damage to objects on exhibition, handling of furniture, handling of ethnological objects, methods of packing museum objects, and mending tears in paper. For FY 1977, seven additional slide-audiocassette informational programs are scheduled for production, and a new series of specialized videotapes on conservation and related topics will be prepared. Subjects will include the conservation aspects of exhibit case design, museum lighting techniques, museum storage methods, and use of proper methods and materials for applying catalogue numbers to museum objects.

The Psychological Studies Program examines the effectiveness of exhibits and visitor reaction to them. Studies include basic research on various exhibition techniques, labeling, floor plans, audiovisual and visitor-response devices; on the problems of visitor orientation, including directional and informational signage and related devices; and on various methods of deploying docent and security forces in museum galleries. In FY 1975, staff completed Part I of a major study for the National Museum of Natural History, completed a study on visitor orientation for the National Museum of History and Technology, and updated and edited an annotated bibliography on studies of museum visitor behavior. In FY 1976, the second portion of the Museum of Natural History report was completed. Evaluations of programs also were undertaken for the Hirshhorn Museum, the Discovery Room of the National Museum of Natural History, and educational activities at the National Collection of Fine Arts. In FY 1977, major psychological studies will be initiated in cooperation with several major museum bureaus of the Institution.

II. South Group Buildings Manager: With 45 positions and \$608,000 as base resources, the South Group Buildings Manager's office plans and supervises cleaning, maintenance, and servicing for staff offices and work areas, and for the public exhibition areas, of the Smithsonian Institution Building and the Arts and Industries Building. This involves

daily cleaning of all office, exhibition, laboratory, and public facility areas; provision of moving services for building occupants; preparing and setting up areas for special events, including lectures, temporary exhibitions, meetings, and seminars; and transportation of objects, materials, and equipment as required. Services must be provided on a seven-day per week basis. The reopened Arts and Industries Building will be in operation permanently as a major public museum.

JUSTIFICATION OF \$125,000 INCREASE (Collections Management) - The Institution's collections have continued to grow in size, scope, and diversity. Authorization has been given to plan a Museum Support Facility off the Mall to contain specialized storage, laboratory, research, and collections processing areas. A museum collections management study is required to draw together comprehensive information on current Institutional philosophy, policy, practice, and procedure regarding collection acquisition and disposal, storage, documentation, and retention (and other matters affecting space utilization and requirements, such as the availability and accessibility of collections for research and reference). The study will present recommendations as needed for improvements in these areas consistent with sound museum practices. All Smithsonian collections (except those of the National Zoological Park) will be considered with due regard for differing practices required by varying subject matters in the fields of art, history, and science collections. The study will provide useful information pertinent to the proposed Museum Support Facility and will serve as a general guide for effective and economical management of collection resources. The study will extend and accelerate efforts already in progress to assemble facts about the growth of collections and the options for managing the acquisition and disposal of collections consistent with their purpose. The requested increase of \$125,000 will permit the Institution to retain consultants to work with staff to update, revise, and improve existing collections management systems to assure the most efficient and scientifically sound methods for controlling the growth of collections and for inventorying and disposing of unnecessary material.

OFFICE OF THE REGISTRAR

1975 Actual.....\$221,000
 1976 Estimate.....\$220,000
 1977 Estimate.....\$227,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	16	0	16
11 Personnel Compensation.....	179	6	185
12 Personnel Benefits.....	16	1	17
21 Travel & Trans. of Persons...	1		1
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction....	2		2
25 Other Supplies.....	6		6
26 Supplies and Materials.....	10		10
31 Equipment.....	4		4
TOTAL	220	7	227
<u>Analysis of Increase</u>			
Necessary Pay.....		7	
Program Funds.....		0	

ABSTRACT - Since the 1880's, the Office of the Registrar has provided centralized registration services for the natural history and history and technology collections. Through the years centralized support of these collections has become inadequate and antiquated; and, moreover, critical areas of collections management have not even been addressed. Registration at the Smithsonian is now undergoing decentralization and modernization. This office is providing guidance for the decentralization process and will provide continuing assistance to all bureaus in modernization of registration systems. No program increase is sought for FY 1977. Necessary pay in the amount of \$7,000 is sought for existing staff.

PROGRAM - Since FY 1974 registration at the Smithsonian has been undergoing decentralization, modernization, and rationalization. Decentralization is aimed at giving each museum or gallery its own registration capability, a necessity for effective record keeping and control in view of the diversity of collections and activities of these bureaus. Services to the National Museum of Natural History (NMNH) and the National Museum of History and Technology (NMHT) have been separately identified, and decentralization of staff resources to these two museums should be completed some time in FY 1977 when space and facilities have been fully secured. The Office of the Registrar is providing guidance for this decentralization.

Modernization includes the streamlining of manual systems for control of the National Collections and computer applications where useful and efficient. After decentralization has been completed, a small central registrar's office will be retained to provide continuing assistance to bureaus in modernization of their systems, and, most important, to guide development of a Smithsonian-wide information system for effective intellectual integration of the National Collections. Rationalization, now complete, included removal of such extraneous functions as mail service and public inquiry from the Office of the Registrar to more appropriate Smithsonian units.

From a total FY 1976 budget of \$220,000, \$101,000 is projected for operation of the central office, and the balance will be made available for registration/shipping functions at the NMNH and NMHT. While it is anticipated that decentralization will be completed by FY 1977, modernization of registration systems and the creation of effective information systems are ongoing projects. The result of these programs will be improved physical and intellectual control over specimens and museum objects by the bureaus and vastly improved information systems at the Institutional level.

CONSERVATION-ANALYTICAL LABORATORY

1975 Actual.....\$534,000
 1976 Estimate.....\$619,000
 1977 Estimate.....\$638,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	23	0	23
11 Personnel Compensation.....	364	17	381
12 Personnel Benefits.....	33	2	35
21 Travel & Trans. of Persons...	13		13
23 Rent, Comm. & Utilities.....	1		1
25 Other Services.....	77		77
26 Supplies and Materials.....	41		41
31 Equipment.....	90		90
TOTAL	619	19	638

Analysis of Increase

Necessary Pay.....	19
Program Funds.....	0

ABSTRACT - Advising and assisting museums in preserving the National Collections is the primary responsibility of the Conservation-Analytical Laboratory (CAL). It advises on the suitability of buildings' environmental conditions for objects displayed or stored. It examines and advises upon or treats objects for their protection and preservation; analyzes objects for basic research data of interest to curators, scientists, and historians; and conducts training programs in association with the Office of Museum Programs. No program increase is sought for FY 1977. Necessary pay in the amount of \$19,000 is required for existing staff.

PROGRAM - The CAL was established in 1963 to serve the museums of the Smithsonian Institution. Staffed by conservators and scientists, it ascertains and advises on the suitability, for artifacts displayed or in storage, of environmental conditions found in the buildings and suggests remedial action if necessary. Based upon examination or analysis, advice is given to curatorial units on conservation procedures for specific objects. Objects which cannot be treated locally, which present special problems, or require more specialized equipment than is available in these units are treated in this central laboratory.

Analyses of objects or their materials (e.g., pigments, fibers, alloys, or corrosion products) by advanced instrumentation serve to determine appropriate conservation procedures or to provide museum archeologists and historians with basic research data concerned with dates, attribution, and ancient production methods. Commercial products proposed for prolonged contact with artifacts (or fumigants used in storage) are examined for suitability.

The Laboratory's data processing system, which provides on-line access to the Office of Computer Services facilities, continues to support conservators through more efficient use of CAL reports. In addition, technical information on conservation practices in the form of video-taped programs and tape-slide lectures is prepared and made available to Smithsonian staff.

Progress in conservation during the past year has been multi-faceted. Despite the disruption caused by reconstruction of the Laboratory, 468 objects or samples were analyzed and treated. A joint project with the Brookhaven National Laboratory has resolved a long-standing analytical difficulty in radioactive dating from small samples. X-radiographic equipment has been installed and is now fully operational. The x-ray fluorescence equipment has been modified to give better service.

SMITHSONIAN INSTITUTION LIBRARIES

1975 Actual.....\$1,564,000
 1976 Estimate.....\$1,804,000
 1977 Estimate.....\$2,026,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	<u>90</u>	<u>5</u>	<u>95</u>
11 Personnel Compensation.....	1,165	112	1,277
12 Personnel Benefits.....	105	10	115
21 Travel & Trans. of Persons...	11	1	12
22 Transportation of Things.....	2		2
23 Rent, Comm. & Utilities.....	25	2	27
24 Printing and Reproduction....	65	31	96
25 Other Services.....	70	13	83
26 Supplies and Materials.....	159	8	167
31 Equipment.....	<u>202</u>	<u>45</u>	<u>247</u>
TOTAL	<u>1,804</u>	<u>222</u>	<u>2,026</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		72	
Program Funds.....		150	

ABSTRACT - The Smithsonian Institution Libraries provides library and information services to support research, exhibits, public service, and education programs. In FY 1977 an increase of 5 positions and \$150,000 is requested to meet the following needs: (1) to acquire necessary library materials (1 position and \$55,000); (2) to increase the application of automation to the cataloguing systems (\$25,000); (3) to conserve valuable books (2 positions and \$50,000); and (4) to augment on-site services to users (2 positions and \$20,000). An amount of \$72,000 is needed for necessary pay for current staff.

PROGRAM - The Smithsonian Institution Libraries is a decentralized service delivery system made up of 13 bureau libraries and many departmental library locations. This decentralized system is supported by centralized reference and circulation, acquisitions, cataloguing, conservation, and administrative services.

The Libraries' collections have achieved national significance in natural history, American ethnology, and history of science, American technology and culture, including the Dibner Collection of rare materials in the history of science and technology.

In recent years the Libraries has increased support of all library activity in the Institution. The Libraries has added staff to service locations, has augmented bureau and departmental book and binding funds, and has assumed full responsibility for library staffing for such bureaus as the National Air and Space Museum, the Smithsonian Tropical Research Institute, and Cooper-Hewitt. It is the goal of the Libraries to provide effective library service with the least duplication of resources and effort. For this reason, the Libraries maintains close communication with bureaus such as the National Collection of Fine Arts, the National Portrait Gallery, Hirshhorn, and Freer which have responsibility for the development of their own library operations. These bureaus fund their library operations to varying degrees, but the Smithsonian Institution Libraries provides general reference and circulation service, technical support, administrative advice, and assistance in funding the purchases and binding of library materials for some of these bureaus.

JUSTIFICATION OF \$150,000 INCREASE (Libraries):

Acquisitions - The development of library collections was rated by users as their most important priority in a recent user survey. Improving the timeliness of the acquisition process was rated as the second most important priority.

Increased funding in FY 1975 enabled the Libraries to improve the timeliness of the acquisition process by allotting book and journal funds throughout the year rather than relying, as in the past, primarily upon funds that might be available at the end of the year after meeting other essential expenses. This procedure of acquiring library materials at a relatively consistent rate throughout the year will be continued in FY 1976. In order to maintain the timeliness of the acquisition process in FY 1977, one library technician (\$10,000) is requested.

Inflation, although not as severe as in 1974, continued in FY 1975 at a rate of 9.4 percent for monographs and 12.0 percent for serials, thereby eroding the Libraries' ability to make significant gains in collection development. Increased funding in FY 1976 will not be sufficient to catch up with the severe inflation of FY 1974-1975, although some progress will be made especially if the projected inflation rate of 7.0 percent is accurate. An increase of \$45,000 for the purchase of library materials in FY 1977 will continue to restore purchasing power to enable the Libraries to meet priority needs.

Cataloguing Systems - FY 1975 was the first complete year in which an on-line computerized cataloguing system was in operation for monographs. The Libraries used the Ohio College Library Center's (OCLC) growing data base, which now consists of about two million records contributed by more than 500 member libraries, to produce in FY 1975 almost 86,000 catalog cards tailored to fit the specifications of the Libraries. Materials searched for bibliographic information increased 46 percent from FY 1974 to FY 1975. Materials completely catalogued increased 12 percent in the same period. In FY 1976 fuller application of the OCLC system is planned. The Libraries also plans to complete the cataloguing of the National Air and Space Museum library collection for the Bicentennial opening of that museum.

A \$25,000 increase is requested in FY 1977 to continue to utilize fully the growing capabilities of the computerized cataloguing system for monographs and to begin the major conversion of the Libraries' serial record to machine-readable form. The goals are to improve the timeliness of the operation, eliminate backlogs, and begin to generate products which will assist librarians and users in the retrieval and control of materials.

Conservation - The conservation of library materials has received little funding in the past, and many valuable and irreplaceable works are seriously deteriorating. The Libraries has been able to bind commercially less than half of its currently received serials. FY 1975 expenditures increased from \$39,000 to \$50,000, but because of a 32 percent increase in costs per volume charged by commercial binders, the Libraries was able to bind 243 fewer volumes in FY 1975 than in FY 1974. Funding increases in FY 1976 may not be sufficient to enable the Libraries to keep pace with inflation in commercial binding rates projected at 7.5 percent. An increase of \$50,000 and two positions is requested in FY 1977. Of this amount, \$30,000 will restore some purchasing power for commercial binding, and one library technician (\$10,000) will improve the efficiency of this operation. If inflation permits, the FY 1977 increase also will enable the Libraries to initiate such activities as inhouse restoration, handwork, minor repairs and pamphlet work, and a pilot preservation project for brittle paper. One further technician (\$10,000) is requested to assist in these activities.

User Services - In FY 1975 the Libraries' major priority was to place new staff in service locations--all of which were understaffed and some of which were not staffed at all. Thirteen new positions were assigned to on-site service locations in FY 1975. The initial success of this effort was demonstrated in the recently completed user

study: more than half of the users report that they frequently seek staff assistance and 80 percent rate the quality of assistance received as excellent. More than 36,000 reference questions were answered by library staff in 1975, 33 percent more than FY 1973. No further staff can be added to service locations in FY 1976.

An increase of two technicians (\$20,000) is requested in FY 1977 to enable the Libraries to extend this successful program to other users. The addition of one position will increase the staffing to one man-year each at the Radiation Biology Laboratory and the National Zoological Park and will initiate part-time service at the Chesapeake Bay Center for Environmental Studies. The addition of the other position will extend on-site service to two major library locations in the Museum of Natural History--Mollusks and Mineral Sciences--which presently receive none, and will increase to one man-year staffing of the major anthropological collection in that museum.

OFFICE OF EXHIBITS CENTRAL

1975 Actual.....\$ 936,000
 1976 Estimate.....\$1,046,000
 1977 Estimate.....\$1,080,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>50</u>	<u>0</u>	<u>50</u>
11 Personnel Compensation.....	843	31	874
12 Personnel Benefits.....	76	3	79
21 Travel & Trans. of Persons...	6		6
22 Transportation of Things.....	1		1
23 Rent, Comm. & Utilities.....	6		6
24 Printing and Reproduction....	13		13
25 Other Services.....	24		24
26 Supplies and Materials.....	58		58
31 Equipment.....	<u>19</u>		<u>19</u>
TOTAL	<u>1,046</u>	<u>34</u>	<u>1,080</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		34	
Program Funds.....		0	

ABSTRACT - The Office of Exhibits Central (OEC), working in close collaboration with museum scientists, curators, and historians, prepares exhibits and related products for those museums, programs, and other offices not having their own inhouse capabilities. OEC also provides specialized exhibit assistance to other bureaus and offices. No program increase is requested for FY 1977. Necessary pay in the amount of \$34,000 is sought for existing staff.

PROGRAM - The Office of Exhibits Central provides design, production, installation, and maintenance services to those museums, programs, and other offices of the Institution not having their own inhouse capabilities for this work and provides specialized assistance to other museums whose programs do not require or allow full-time staffing and/or establishment of certain shop facilities. Consultation as well as job performance is available in the following specialized areas: label editorial services, exhibition lighting, exhibit motion picture production, audiovisual presentations, freeze-dry taxidermy, and the services of models, plastics, and restoration laboratories (specializing in fluid, thermo-setting, and reinforced plastics used in museum applications).

In coordination with the Office of Museum Programs, OEC also provides training in exhibition media and techniques and is developing programs to research, design, develop, evaluate, and communicate new exhibition techniques, systems, and procedures of value to the museum community.

During the first half of FY 1976, the OEC completed 81 exhibit-related projects for 20 separate Smithsonian "clients" and provided consultant services to ten museums outside the Institution. At the same time, 75 projects--long- and short-term--remained active on OEC schedules. Major OEC effort in the past 18 months has been devoted to providing assistance and/or full-program performance for the following exhibitions and activities: a special exhibit of Japanese art in the Smithsonian Institution Building designed to coincide with the visit of the Emperor; over 90 projects for the Traveling Exhibition Service; the Bicentennial exhibits, "City with a Plan" and "1876"; an Anacostia Neighborhood Museum exhibit, "Blacks in the West"; a motion picture and other exhibition support for the 1975 Festival of American Folklife; and a traveling exhibit for the National Associates, "American Archives of Art." Assistance in model making, plastics, restoration, and exhibition lighting was provided the Museum of Natural History exhibit staff in the production of "Our Changing Land" and "A Continent and Its Culture" and the Museum of History and Technology exhibit staff in "San Antonio Sculpture" and "We the People."

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

1975 Actual.....\$105,000
 1976 Estimate.....\$ 99,000
 1977 Estimate.....\$102,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	6	0	6
11 Personnel Compensation.....	66	3	69
12 Personnel Benefits.....	6		6
21 Travel & Trans. of Persons...	3		3
22 Transportation of Things.....	3		3
25 Other Services.....	18		18
26 Supplies.....	3		3
TOTAL	99	3	102
<u>Analysis of Increase</u>			
Necessary Pay.....		3	
Program Funds.....		0	

ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) provides carefully selected, well-designed, and widely circulated traveling exhibits covering a diversified range in the fields of art, design, science, technology, history, and education. These exhibits include Smithsonian exhibits and those organized and lent by numerous Government agencies and individuals and organizations throughout the world. No program increase is sought for FY 1977. Necessary pay for existing staff in the amount of \$3,000 is requested.

PROGRAM - SITES, in continuous operation for 24 years, is the only nationwide organization circulating exhibitions of an interdisciplinary curriculum serving specialized and general museums, galleries, and educational and cultural organizations throughout the nation. It is the sole official agency of the United States to circulate official exhibitions from abroad. Supplementing the SITES operating budget for FY 1976 will be an estimated \$289,000 from rental fees; \$227,000 of special purpose gifts, grants, and contracts; and \$486,000 of Smithsonian Bicentennial program funds.

Approximately 6.4 million people view SITES exhibitions annually (upwards of 800 installations viewed by an average of 8,000 each). The Federal appropriations for this activity have enabled exhibition rental fees to be kept lower than would otherwise be possible. In FY 1976 continued progress in maintaining low rental fees is projected. Using \$200 as a measure of exhibition accessibility, the following pattern emerges:

Number of Exhibitions that rent for \$200 and less	Fiscal Year	Number of Exhibitions that rent for more than \$200
29	FY 1973	72
52	FY 1974*	52
68	FY 1975	49
107	FY 1976	70

* The first year of Federal support for SITES.

Bicentennial exhibitions and program planning have dominated program activity during FY 1976. There are two types of Bicentennial exhibition: (1) those that contain original objects, and (2) panel shows. Exhibitions with original objects are composed of objects borrowed for tour from the Smithsonian, other United States lenders, and from collections in other countries. Panel exhibitions are of two types: (1) those that stand alone--without the addition of artifacts, and (2) the so-called "information core" exhibitions--shows that prompt exhibiting institutions to add objects from collections in their area, thus providing a conceptual framework which can be fleshed out from local resources. Information core exhibitions are a new dimension in the travel of shows. They save transportation costs and begin a new era of cooperation between the Smithsonian and museums throughout the United States.

As SITES moves into the post-celebration period, it finds a continuing need for exhibitions on our nation's history. The Bicentennial has provided the stimulus to hundreds of organizations to avail themselves of the resources represented by traveling exhibitions. SITES will continue to serve this need while relying heavily on its non-Federal operating budget.

The international Bicentennial program begun with American Revolution Bicentennial Administration (ARBA) assistance will enable SITES to host for the United States large exhibitions of foreign origin. Tours of 25 shows will begin in 1976 and early 1977. In negotiation are 15 additional shows. The international program will be continued after the ARBA support is no longer available through the application of substantially increased rental fees.

As of January 9, 1976, SITES has the following bookings:

Alabama	13	Kentucky	5	North Dakota	4
Alaska	3	Louisiana	6	Ohio	26
Arizona	4	Maine	5	Oklahoma	7
Arkansas	6	Maryland	22	Oregon	16
California	85	Massachusetts	21	Pennsylvania	30
Colorado	19	Michigan	34	Rhode Island	3
Connecticut	11	Minnesota	15	South Carolina	9
Delaware	4	Mississippi	10	South Dakota	3
District of Columbia	9	Missouri	16	Tennessee	27
Florida	21	Montana	2	Texas	53
Georgia	6	Nebraska	1	Utah	1
Hawaii	2	Nevada	2	Vermont	0
Idaho	1	New Hampshire	4	Virginia	13
Illinois	36	New Jersey	19	Washington	13
Indiana	22	New Mexico	3	West Virginia	11
Iowa	12	New York	64	Wisconsin	41
Kansas	34	North Carolina	8	Wyoming	3

Partial Listing of Exhibitions Beginning Tours
During 1976

Based on Smithsonian Collections

The Men and Machines of American Journalism (6 copies)
American Prints from Wood
American Art in the Making
Romaine Brooks
Mr. Audubon and Mr. Bien
The Dye is Now Cast (6 copies)
WPA/FAP Printmaking
Jack Tar: American Merchant Seafarers (3 copies)
Bridges: The Spans of North America
Tropical Blossoms
Floorcoverings
American Presidential China

Based on Other Sources

Contemporary Crafts of the Americas
Danish Expressions in Textile
Finnish Icons
Swiss Toys
Edvard Munch
Argentine Silver
Epstein Sculpture
The American Eagle: Symbol for
Survival (3 copies)
Dream of America
Antarctica: Two Views

SMITHSONIAN ARCHIVES

1975 Actual.....\$180,000
 1976 Estimate.....\$196,000
 1977 Estimate.....\$209,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	11	1	12
11 Personnel Compensation.....	171	12	183
12 Personnel Benefits.....	14	1	15
21 Travel & Trans. of Persons...	2		2
25 Other Services.....	6		6
26 Supplies and Materials.....	2		2
31 Equipment.....	1		1
TOTAL	196	13	209
Analysis of Increase			
Necessary Pay.....		6	
Program Funds.....		7	

ABSTRACT - The Smithsonian Archives is the official memory of the Institution and a valuable research resource for scholars working in the history of American science and in the history of the cultural institutions which are under Smithsonian care. The Archives currently has control over six million documents and is developing intellectual control over several million additional documents held in research and curatorial areas.

The FY 1977 budget request proposes a program increase of 1 position and \$7,000 to provide additional clerical assistance for the preserving and servicing of archival records. An amount of \$6,000 is sought for necessary pay for existing staff.

PROGRAM - The Smithsonian Institution holds a unique collection of museum objects and archives for research and exhibition. Natural history specimens, art objects, and other collections are interpreted by archival documentation which supplements and explains them. Archival records of the Smithsonian's activities also attract historians and other scholars interested in science and art in the nation's capital from the 1830's to the present. Some six million documents are now in the central archives, while approximately ten million more under the care of the Archives remain spread throughout the Institution.

The Smithsonian Archives strives to achieve intellectual control over the vast and dispersed archival resources of the Institution amounting to several million documents. In calendar year 1975, the Smithsonian Archives completed records surveys of the National Collection of Fine Arts and the National Portrait Gallery and began a records survey of the Office of the Treasurer. Systematic records retention schedules are being implemented for these bureaus. Microfilming of the Institution's main accession file continued. Additions to the Archives totaled almost two million documents, including records of the divisions of reptiles, mammals, and crustacea, National Museum of Natural History; records of the Smithsonian Astrophysical Observatory; and the papers of Charles G. Abbot, fifth Secretary of the Institution; and the Society of Systematic Zoology, among others.

A major effort in FY 1976 will be concentrated in the National Museum of Natural History, where a backlog of records, amounting to some 6,000,000 items, requires attention. It is anticipated that a guide to these records will be published in FY 1977 or FY 1978.

JUSTIFICATION OF \$7,000 INCREASE (Collections Management)- One position and \$7,000 are requested to assist the Archives in its new responsibilities for registration records. The accession files of the United States National Museum, 1846-1958, are being transferred from the central registrar's office to the Smithsonian Archives. Consisting of some 400,000 documents, these records are invaluable for specimen documentation and other historical research. A program for microfilming these records is expected to continue for approximately seven years. The Archives needs clerical assistance to preserve and service these records. This position will also be available as required to assist in the entire range of activities of the Archives, including microfilming, preparation of finding aids, and the oral history program.

NATIONAL MUSEUM ACT

1975 Actual.....\$802,000
 1976 Estimate.....\$769,000
 1977 Estimate.....\$807,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	3	0	3
11 Personnel Compensation.....	37	1	38
12 Personnel Benefits.....	3		3
21 Travel & Trans. of Persons...	14		14
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction....	4		4
25 Other Services.....	5		5
26 Supplies and Materials.....	1		1
31 Equipment.....	1		1
41 Grants.....	703	37	740
TOTAL	769	38	807
<u>Analysis of Increase</u>			
Necessary Pay.....		1	
Program Funds.....		37	

ABSTRACT - The National Museum Act is a technical assistance program granting funds for specific proposals which advance the museum profession at large through training, research, publication, or professional assistance. Through these programs, museum personnel have the opportunity to receive training which was not available previously; and a number of important studies, many related to museum conservation, have been undertaken. For FY 1977, an additional \$37,000 are requested for the grants program and \$1,000 necessary pay for the administering staff.

PROGRAM - Public Law 93-345, approved July 12, 1974, reauthorized appropriations for the National Museum Act through FY 1977 and funding of \$1,000,000 to the Smithsonian Institution each year. Particular concern is expressed in the legislation for the needs of museum conservation through training, research, and coordination.

Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act are made available, through grants and contracts, to museums, professional associations, and universities. Such funding is determined by the National Museum Act Advisory Council appointed for this purpose by the Smithsonian Institution. The membership of the Advisory Council encompasses the principal museum disciplines--art, science, and history--and is broadly representative of all regions of the United States. The Council advises and assists the Secretary in determining priorities and assessing the quality of programs seeking support under the Act. Only programs which demonstrate to the Advisory Council careful structure and sound administration receive support. The major aim of the National Museum Act is to provide opportunities for professional enhancement and research which can be demonstrated to be of usefulness to museums.

In FY 1975, 149 applications for support were received and reviewed, and 56 grants, totaling \$752,000, were made. Of these, 13, for a total of \$213,000, applied to conservation projects.

In FY 1976, 160 applications have been received; 80 of these were reviewed at the November 1975 Advisory Council Meeting, and 28 grants totaling \$357,000 were awarded. Six grants were given for seminar workshop activities, six for conservation studies,

four for advanced academic degree work, six for museum internship programs, and six for graduate/professional museum education and training. These grants were distributed among ten individuals, eight museums, six educational institutions, and four professional museum organizations. The remaining 80 applications, which cover travel/study and professional exchange programs, professional assistance, and special studies and research, will be reviewed in March 1976.

The staffs of the National Museum Act and the Office of Museum Programs work closely with individuals, museums, educational institutions, and professional organizations involved in the training and research activities. Continuous liaison is maintained with the National Conservation Advisory Council (NCAC), funded by the Act, whose aim is to assess the nation's needs in conservation training, research, facilities, and the requirements that could be served by the creation of regional conservation centers. Under support provided in FY 1975, the NCAC studied thoroughly all issues related to a national institute for museum conservation in addition to other aspects of conservation activity and has begun preparation of reports containing findings and recommendations.

JUSTIFICATION OF \$37,000 INCREASE (Other Services) - A program increase of \$37,000 will enable additional grants to be made for projects in keeping with the purposes of the Act and thus extend the benefits of this important program to a larger number of museum personnel. Many worthy projects must be turned down at each review session of the Advisory Council for lack of funds.

SMITHSONIAN INSTITUTION SPECIAL PROGRAMS

These special programs make use of total Institutional resources, including staff research competence, collections, and space for exhibits, to produce outstanding scholarship, exhibits and other presentations, and additional opportunities for public education. These special programs include:

- The American Revolution Bicentennial Program will conclude the Institution's efforts to celebrate and portray "The American Experience," the first two-hundred years of American history and what they may mean for the future.
- The International Environmental Science Program is designed to shed light on complex biological processes that need to be better understood before solutions to national ecological programs can be determined.
- The Major Exhibition Program funds the design and production of exhibits of unusual national significance and timeliness.
- The Academic and Educational Programs offices conduct interdisciplinary seminar series, coordinate educational programs for students at the elementary and secondary school level, and provide opportunities for outstanding pre- and post-doctoral investigators from across the Nation to work under the supervision of the Institution's professional staff.
- The Research Awards Program enables the Institution to fund especially meritorious studies through a competitive selection process.

Full descriptions of these programs appear in the following sections of this budget.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

1975 Actual..... \$3,855,000
 1976 Estimate..... \$4,284,000
 1977 Estimate..... \$ 417,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>2</u>	<u>0</u>	<u>2</u>
11 Personnel Compensation.....	1,075	-840	235
12 Personnel Benefits.....	90	-66	24
21 Travel & Trans. of Persons...	199	-197	2
22 Transportation of Things.....	103	-63	40
23 Rent, Comm. & Utilities.....	76	-76	
24 Printing and Reproduction...	614	-586	28
25 Other Services.....	1,686	-1,637	49
26 Supplies and Materials.....	283	-259	24
31 Equipment.....	150	-136	14
42 Insurance Claims & Indemn....	8	-7	1
TOTAL	<u>4,284</u>	<u>-3,867</u>	<u>417</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		0	
Program Funds.....		<u>-3,867</u>	

ABSTRACT - The Smithsonian Institution is now in the midst of its Bicentennial program, The American Experience. By July 4, 1976, 17 of its 23 major projects will have been completed with 2 more taking place in September 1976 and the remaining 4, 3 publications and a symposium, during 1977. Of the 23 projects, 19 have received special Bicentennial appropriation. These plus the other 4 and the additional supporting events scheduled in each of the museums make up a total of some 60 special Smithsonian exhibitions and programs during the Bicentennial period. Final funding of \$417,000 is sought in FY 1977 for the special Bicentennial program, a reduction of \$3,867,000 from the FY 1976 level.

PROGRAM - Of the Bicentennial program's major projects, 13 have resulted in 15 major Bicentennial exhibitions in Washington. These involve 10 Smithsonian buildings and cover more than 200,000 square feet incorporating some 40,000 objects. More than 200 traveling exhibitions are currently circulating in every state of the country. There are 32 special Bicentennial exhibitions, eight with artifacts or objects, and 24 panel exhibitions in over 100 copies. The total number of bookings for the Bicentennial and panel exhibitions alone over a two-year period is 1,680. Next summer, the Festival of American Folklife will be held on the Mall between the Lincoln Memorial and the Washington Monument for 12 weeks beginning in June and ending with Labor Day weekend. Some 550 participants will take part in the Festival each week, with more than 5,000 people from all over the country and the world having shared some of their rich, cultural traditions before the end of the summer. Finally, more than 1,000 scholars will take part in various symposia relating to the United States in the world and to the contributions from all nations in the world to the making of a new nation. The symposia will result in major publications, and these, along with the Encyclopedia of North American Indians, the Bibliography of American Art, the Inventory of American Paintings, The American Experience Portfolio Series, and more than two dozen exhibit catalogues and books, will endure as permanent records of the Bicentennial Era. The following listing details required FY 1977 funding.

A New Museum

The National Air and Space Museum*	--
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Exhibitions in Washington

A Nation of Nations (National Museum of History and Technology)	\$ 45,000
Ecology 200--Our Changing Land (National Museum of Natural History)	--
1876--A Centennial Exhibition (Arts and Industries Building)	115,000
Revolutionary Period Exhibitions (National Portrait Gallery)	15,000
America as Art (National Collection of Fine Arts)	4,000
Americas and Symbols in the City (Renwick Gallery)	29,000
Artist-Immigrants of America: 1876-1976 (Hirshhorn Museum and Sculpture Garden)	--
Arts of Asia* (Freer Gallery of Art)	--
The Federal City (Smithsonian Institution Building)	--
	<u>\$208,000</u>

Traveling Exhibitions

Information and Exhibit Systems	--
Object-oriented Exhibitions (Smithsonian Institution Traveling Exhibition Service)	\$ 24,000
Exhibits Design and Production Laboratory (Anacostia Neighborhood Museum)	--
	<u>\$ 24,000</u>

Festival

Festival of American Folklife	\$ 63,000
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Major Scholarly Projects

Inventory of American Paintings Before 1914 (National Collection of Fine Arts)	\$ 25,000
Bibliography of American Art (Archives of American Art)	30,000
Encyclopedia of North American Indians (Center for the Study of Man)	--
Sternwheeler Bertrand (National Museum of History and Technology)	--
The United States in the World (International Conference - Smithsonian Institution, American Studies Association, American Council of Learned Societies)	--
Kin and Communities: The Peopling of America* (Smithsonian Institution, American University)	--
	<u>\$ 55,000</u>

Support

Visitor Orientation and Services for the Bicentennial Year	--
General Administration	\$ 67,000
Protection	--
Buildings and Facilities Management	--
	<u>\$ 67,000</u>

TOTAL	<u>\$417,000</u>
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*Not funded by Bicentennial appropriation.

JUSTIFICATION OF \$417,000 PROGRAM - FY 1977 will mark the completion of the Smithsonian's special 81centennial program. Five of the major exhibitions will be on view throughout the year, three of the major scholarly projects will be published, and the final symposium will take place. As exhibitions close, objects on loan must be returned to the lending institutions, and records of all of the projects prepared for the Smithsonian Archives. A total sum of \$417,000 is requested for this final phase of the program.

Of that amount, \$308,000 are needed to cover temporary personnel and contracts which will provide the manpower necessary to manage the remaining exhibitions, close down the enlarged Festival of American Folklife, administer the traveling exhibitions, fulfill the Smithsonian's commitments to other institutions across the country, and organize records and archival material.

Travel and transportation of persons and things along with insurance in conjunction with returning borrowed objects will require another \$43,000.

The Bibliography of American Art will be published in 1977, and \$28,000 are requested for completion of this project.

Finally, \$38,000 are requested to provide the supplies and equipment necessary to keep "A Nation of Nations" and "1876--A Centennial Exhibition" running. These two exhibitions are the largest shows ever mounted by the Smithsonian, and both contain considerable amounts of operating machinery as well as audiovisual equipment.

Smithsonian Institution

EXHIBITIONS AND EVENTS IN THE BICENTENNIAL PERIOD

Openings Before 1975

Openings:	<u>1975</u>	
April	20	<u>Medals of the American Revolution</u> National Museum of History and Technology
September	14	<u>*In the Minds and Hearts of the People, 1760-1774</u> National Portrait Gallery
September	18	<u>Suiting Everyone</u> National Museum of History and Technology
October	3	<u>*Anacostia Exhibits Design and Production Laboratory</u> Anacostia Neighborhood Museum
November	14	<u>*The Dye is Now Cast</u> National Portrait Gallery
September	18	<u>*Blacks in the Westward Movement</u> Anacostia Neighborhood Museum
October	3	<u>American Banking</u> National Museum of History and Technology
November	14	<u>Sculpture: American Directions, 1945-1975</u> National Collection of Fine Arts
November	14-15	<u>Portraits from the Americans: The Democratic Experience</u> National Portrait Gallery
November	14-15	<u>Music and Dance from the Age of Jefferson - Premier</u> Division of Performing Arts
November	20	<u>*Ecology 200 - Our Changing Land</u> National Museum of Natural History
December	5	<u>Peggy Bacon: Personalities and Places</u> National Collection of Fine Arts
December	6	<u>American Presidential China</u> National Museum of History and Technology

December	9	<u>Artists and Models</u>	Archives of American Art
December	15	<u>Arts of Asia at the Time of American Independence</u>	Freer Gallery of Art
December	18	<u>The Sculpture and Drawings of Elie Nadelman</u>	Hirshhorn Museum and Sculpture Garden
December	18	<u>Drawings from the Permanent Collections</u>	Hirshhorn Museum and Sculpture Garden
December	19	<u>Bob Thompson: 1937-1966</u>	National Collection of Fine Arts
Openings:	<u>1976</u>		
January	16	<u>Emanuel Leutze, 1816-1868: Freedom is the Only King</u>	National Collection of Fine Arts
January	23	<u>...and there was Light: Studies by Abraham Rattner for the stained glass window, Loop Synagogue, Chicago</u>	National Collection of Fine Arts
February	6	<u>*Signs of Life: Symbols in the City</u>	Rewick Gallery
February	8	<u>**The Black Woman</u>	Anacostia Neighborhood Museum
February	13	<u>George Miller and American Lithography</u>	National Collection of Fine Arts
February	23	<u>*The Federal City: Plans and Realities</u>	Smithsonian Institution Building
March	4	<u>David Levine: Satirical Drawings</u>	Hirshhorn Museum and Sculpture Garden
March	12	<u>*A Nation of Nations</u>	National Museum of History and Technology
March	12 or 31	<u>Presentation of Bicentennial Inventory of American Paintings executed before 1914</u>	National Collection of Fine Arts
April	9	<u>*Abroad in America: Visitors to the New Nation, 1776-1914</u>	National Portrait Gallery

Openings: <u>1976</u> (continued)		
April	16	Behind the Scenes at the National Collection of Fine Arts National Collection of Fine Arts
April	30	*America as Art National Collection of Fine Arts
May	5	<u>Drawings from the Permanent Collection</u> Hirshhorn Museum and Sculpture Garden
May	9	Retrospect: John Robinson Anacostia Neighborhood Museum
May	11	* <u>1876: A Centennial Exhibition</u> Arts and Industries Building
May	11	<u>Christian Gullager - Portrait Painter to Federal America</u> National Portrait Gallery
May	13	Arne Jacobsen Renwick Gallery
May	20	<u>Artist-Immigrants of America: 1876-1976</u> Hirshhorn Museum and Sculpture Garden
May	22	Children's Day National Collection of Fine Arts
May	24-29	Restaurant, Bird House, Elephant House, Lion and Tiger House National Zoological Park
May	28	<u>Centennial 1876</u> National Collection of Fine Arts
June	14-16	<u>Kin and Communities: The Peopling of America (Workshops)</u> Office of Smithsonian Symposia and Seminars
June 16 - Sept. 7		<u>Festival of American Folklife</u> Division of Performing Arts
June	25	<u>Miniature Paintings</u> National Collection of Fine Arts
July		<u>Wedgwood Revolutionary Period Portraits</u> National Portrait Gallery
July	1	<u>Rauschenberg's "Stoned Moon Series"</u> Hirshhorn Museum and Sculpture Garden
July	4	National Air and Space Museum National Air and Space Museum

Openings: <u>1976</u> (continued)		
July	5	<u>*The Anacostia Story</u> Anacostia Neighborhood Museum
July	6	<u>*Bicentennial Inventory of American Paintings</u> (Directory to be published and resources opened) National Collection of Fine Arts
July	8	<u>Southworth and Hawes Daguerreotypes</u> National Portrait Gallery
September	9	<u>*Americas - The Decorative Arts in Latin America in the Era of the Revolution</u> Penwick Gallery
September	9	<u>Drawings by Philip Evergood</u> Hirshhorn Museum and Sculpture Garden
September	16	<u>John Covert</u> Hirshhorn Museum and Sculpture Garden
September	24	<u>Washington Print Club: Members Show</u> National Collection of Fine Arts
September	26 - Oct. 1	<u>*The United States in the World - International Conference</u> Office of Smithsonian Symposia and Seminars
September/October		<u>*The New Immigration - Implications for American Society (a Forum)</u> The Research Institute on Immigration and Ethnic Studies
October	12	<u>Columbus and His Time (tentative)</u> National Museum of History and Technology
October	15	<u>Hans Hofmann</u> Hirshhorn Museum and Sculpture Garden
October	15	<u>American Presidential Political Cartoons</u> National Portrait Gallery
October	29	<u>Robert Rauschenberg</u> National Collection of Fine Arts
November	19	<u>Jacob Kainen: Print Retrospective</u> National Collection of Fine Arts
November	24	<u>Poetry and Visual Arts</u> Penwick Gallery
December	17	<u>Painted American Furniture</u> Penwick Gallery

*Indicates projects funded by special Bicentennial appropriation.

INTERNATIONAL ENVIRONMENTAL SCIENCE PROGRAM

1975 Actual.....\$176,000
 1976 Estimate.....\$328,000
 1977 Estimate.....\$376,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	2	0	2
11 Personnel Compensation.....	153	4	157
12 Personnel Benefits.....	14	1	15
21 Travel & Trans. of Persons...	30	8	38
22 Transportation of Things.....	4		4
23 Rent, Comm. & Utilities.....	3		3
25 Other Services.....	61	15	76
26 Supplies and Materials.....	31	10	41
51 Equipment.....	32	10	42
TOTAL	328	48	376
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Program Funds.....		43	

ABSTRACT - This program is designed to use the special abilities of the Smithsonian's science bureaus to study those ecosystems now under stress from human interference. Scientists are identifying key indicators, such as the amount of nitrates in a stream, to improve the predictability of environmental changes. Such prediction, when possible, can result in wiser management decisions for protecting our disappearing renewable resources--everything from the number of fish in an estuary to the quality of hay in a field. Smithsonian scientists have been emphasizing the study of tropical ecosystems because these are the most fragile and are where most of the world's people live. Efforts have concentrated on those few places in the tropics that are still relatively free of human stress. In this way, it may be possible to learn what is necessary to conserve the endangered plants and animals that still survive there. For FY 1977 an increase of \$43,000 is requested for further selective development of this program. An amount of \$5,000 is required for necessary pay for existing staff.

PROGRAM - The Environmental Science Program was established in FY 1971 as a multi-bureau, interdisciplinary effort to understand better and to monitor stressed ecosystems at two specific Smithsonian research facilities, the Tropical Research Institute in Panama and the Chesapeake Bay Center for Environmental Studies in Maryland. The International Environmental Program is an interbureau, interdisciplinary effort aimed at studying various ecosystems in the tropics and subtropics. These two programs have now been integrated because of their close scientific relationships. The Smithsonian Institution is uniquely qualified to undertake this type of research since it has had both traditional expertise in international environmental research and the capability to sustain scientific programs on the necessary long-term basis. Prior to this program, the Smithsonian had as many as 40 to 60 scientists doing individual field work overseas at any one time, but until now was unable to maximize its resources in those regions that are of pan-institutional interest.

Staff resources consist primarily of specialists from several Smithsonian bureaus--the National Museum of Natural History, National Zoological Park, Radiation Biology Laboratory, Tropical Research Institute, and the Chesapeake Bay Center for Environmental Studies--as well as others from several research organizations both in this country and abroad. The most intensive and detailed studies are based at two of the Smithsonian's

permanent facilities. At the Tropical Research Institute, a tropical forest on Barro Colorado Island and an intertidal coral reef at Galeta Point are the focus of close ecological monitoring. For comparative purposes, an equally intensive study is underway on a temperate estuary and its watershed in the Rhode River at the Chesapeake Bay Center for Environmental Studies. The other elements of the International Environmental Science Program network are at non-permanent facilities in the tropics where the goal is to involve host country nationals to such a degree that they will ultimately support the research centers themselves.

Projects are currently being carried out on the marine ecosystem of the Galapagos Islands, Ecuador; the Fly River region of Papua, New Guinea; the Amazonian region surrounding Manaus, Brazil; the Savanna and forest sites south of Maracay, Venezuela; and Chitawan National Park in the terai of Nepal. At the majority of these sites, scientists have keyed their research to the endangered species of the regions under study. Assisted by the advanced work done at the permanent Smithsonian sites, important contributions have already been made by field biologists at these overseas projects to the better management of such threatened animals as the big cats of Asia and New World primates. Effective management decisions are possible only because the entire habitat is under interdisciplinary study.

JUSTIFICATION OF \$43,000 INCREASE (Research) - In order to develop a more comparative program between the various research sites, several types of monitoring projects are needed. To understand the interaction between insects and plants in the tropics, funds are requested to concentrate on leaf-eating ants and for work on the relationship between mammals and plants, especially where and how small mammals get their food when their main sources (fruiting trees) are not in season. Since the tropics will have to support an ever increasing human population, we must learn the actual limiting factors to plant production. Promising results are expected from the expansion of the solar radiation monitoring program at the Tropical Research Institute, which measures intensity and quality of sunlight reaching above and below the forest canopy and in the water around the coral reef. Further work is also needed to understand the nitrogen-nutrient relationship especially to complement the ongoing phosphorus-nutrient studies. These studies are important in setting up the methodology to understand ecosystems better. Funds are also needed to offset the severe inflationary costs being experienced for necessary equipment, particularly at the sites in developing countries. Support is also needed to computerize the ever increasing amount of data being produced so that vital comparative insights can be gained.

MAJOR EXHIBITION PROGRAM

1975 Actual.....\$ 38,000
 1976 Estimate.....\$260,000
 1977 Estimate.....\$ 50,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	0	0	0
24 Printing and Reproduction....	1	-1	
25 Other Services.....	257	-207	50
31 Equipment.....	2	-2	
TOTAL	260	-210	50
Analysis of Increase			
Necessary Pay.....		0	
Program Funds.....		-210	

ABSTRACT - The major permanent exhibitions of the Smithsonian Institution are nationally and internationally recognized to be among the best examples of public communication and education in the museum world. The Major Exhibition Program has as its purpose the production of exhibitions which will supplement the regular exhibits programs of the museums. Funds appropriated in FY 1976 will allow completion of the "Benefits of Flight" exhibit which will be displayed in the new National Air and Space Museum building. Funding of \$50,000 is requested for this program in FY 1977, a reduction of \$210,000 from FY 1976, to initiate planning for an exhibit focussing on food supply problems and possible solutions in the 21st century.

PROGRAM - The "Benefits from Flight" exhibit will present the many benefits that have accrued to man and society since the advent of powered flight. The scope of this exhibition has been broadened from the earthbound benefits of space flight alone to the consequences of air and space flight which have emerged over the course of this century. The thematic structure of the hall establishes the relationships among air and space research, development and operations, and the persons to whom the results of these activities accrue.

The most significant benefits which have emerged in the historical development of air and space are those directly associated with flight: high-speed transportation of people, staple supply and disaster relief, airborne defense and reconnaissance, satellite monitoring of earth conditions and resources, relay of information, and basic scientific knowledge. Our view also includes the broader social impact such as flight in the arts and in popular culture, flight as a homogenizing and educating influence, and flight as a source of entertainment.

The high technology associated with, and nurtured within, the aerospace industry continues to be adapted to serve many other needs of our society. The exhibit will also explain how these needs are met through the transfer of aerospace technology to ground-based applications in medical, transportation, public service, managerial, and other segments of society.

JUSTIFICATION OF \$50,000 PROGRAM (Exhibition) - Public Law 94-74, approved August 8, 1975, reserved the last remaining building site on the Mall between 3rd and 4th Streets, Independence Avenue and Jefferson Drive for the Smithsonian to develop for public purposes. Until plans for its permanent use can be formulated and presented to Congress, this two and a half acre site offers an attractive potential for temporary exhibitions focussing on major predicaments and possible solutions that face mankind

in the next hundred years, our Nation's third century. Such an informed projection into the future would complement the Smithsonian's current array of exhibits which essentially document the past, including special presentations for the Nation's Bicentennial. The sweeping advances in science and technology depicted in the new National Air and Space Museum immediately to the west of this site certainly will exemplify what might be accomplished were a similar mobilization of intellect to be concentrated on humanity's greatest needs.

This space though relatively small is ideal to present modest, flexible exhibits including some outdoor agricultural displays having to do with problems Americans and others must come to grips with in the 21st century, with special emphasis upon the provision of those life support systems essential to sustain human populations. An initial exhibit could show new advances and potentials in food production, preservation, and distribution. Improved hybrid varieties of food grains, such as wheat and rice, might be shown growing alongside traditional strains to demonstrate their potential for vastly increased yields when combined with higher inputs of fertilizer, pesticides, and the use of mechanization. Attention would be called to the potential environmental hazards associated with such inputs. One exhibit might illustrate how American farmers through research can reduce energy requirements without significant declines in yield, or it might show how our agricultural technology can be adapted to meet the needs of energy-deficient countries. Compelling displays of new sources of food and protein substitutes together with a visual assessment of the potential of aquaculture, hydroponics, new approaches to insect and disease control, storage, and transportation, etc., could be housed in demountable prefabricated pavilions or geodesic domes.

For FY 1977, an amount of \$50,000 is requested to develop plans for this initial exhibit, including scripts and other visual matters. Funds would be used for consultants, term appointments of specialists, and other non-recurring expenses. Funding for the actual fabrication of the exhibits will be requested in the FY 1978 budget.

ACADEMIC AND EDUCATIONAL PROGRAMS

1975 Actual.....\$620,000
 1976 Estimate.....\$637,000
 1977 Estimate.....\$813,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	<u>11</u>	<u>1</u>	<u>12</u>
11 Personnel Compensation.....	173	19	192
12 Personnel Benefits.....	16	2	18
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction....	27	5	32
25 Other Services.....	407	150	557
26 Supplies and Materials.....	4		4
31 Equipment.....	2		2
TOTAL	<u>637</u>	<u>176</u>	<u>813</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		9	
Program Funds.....		167	

ABSTRACT - A major Smithsonian objective is to make its resources for learning (collections, professional staff, libraries, and laboratories) available to the general public and the formal education community. These efforts take the form of programs in higher education, symposia and seminars, and activities at the elementary and secondary education level. The FY 1977 budget requests increases of 1 position and \$167,000 to strengthen research training, seminar, and other education activities. A further \$9,000 are required for necessary pay for current employees.

PROGRAMS AND JUSTIFICATIONS OF INCREASES (Education):

Office of Academic Studies - The Smithsonian's academic studies program is designed to offer individual research training, at small cost per individual, to young scholars who require access to Smithsonian staff and collections. The Institution has resources in many specialized areas where the combination of staff expertise and specimen collections is not available in universities. Both the visiting investigators and the Smithsonian research staff find that these opportunities for training and guidance provide significant intellectual stimulation and important research results.

Academic visitors to the Smithsonian come from and return to schools all across the Nation. The period of intense study spent at the Smithsonian allows them to carry to many universities specialized knowledge to be used in their development as better teachers and researchers. One person, who received his Ph.D. from the University of Utah, spent a year studying North American archeology at the Smithsonian. Since leaving to teach at the University of Pittsburgh, he has discovered at the Meadowcroft Site in Western Pennsylvania Paleolithic cultural remains 13,000 years old. This is the oldest human habitation discovered in the Eastern United States and will add greatly to our knowledge of man's development in America. Another individual, who received his Ph.D. from the University of Washington, left the Smithsonian to teach at the University of Hawaii. He studied the development of the submarine in America while at the Smithsonian and is currently completing research for a two volume reference work on the subject at the Philadelphia Maritime Museum.

Since 1965, as a major part of its higher education programs, the Smithsonian has offered support to 254 Ph.D. candidates and to 238 postdoctoral scholars. Over 540 undergraduate and first- and second-year graduate students have been offered the opportunity to consult the research staff and collections for short periods.

During the past year some 7,500 verbal and written inquiries were received from individuals interested in all academic programs, of which about one half asked about the predoctoral and postdoctoral program at the Smithsonian. After intensive screening and counseling to eliminate all but those who might expect to have a strong chance of receiving appointment, about 200 applications were received. More than 50 percent of these were considered excellent and worthy of appointment, but only 20 percent could be offered an appointment.

The Institution is now able to fund approximately 40 predoctoral and postdoctoral scholars yearly. There has been no increase in this number for nine years, during which period demands from the academic and research community have grown increasingly urgent. New Smithsonian museums opened during this period offer expanded areas for study. The need for additional support could be partially met by a \$150,000 increase. This would allow appointment of 17 additional predoctoral and postdoctoral scholars.

A further increase of \$3,000 is requested to provide the additional funds needed to hire an administrative assistant to replace the part-time services of an employee who is no longer available.

Office of Smithsonian Symposia and Seminars - The Office of Smithsonian Symposia and Seminars will continue its Bicentennial program "Kin and Communities: The Peopling of America" beyond 1976 into the following year, when the Institution's sixth international symposium will take place June 14-17, 1977, reflecting on the role of family institutions and communities in shaping the nation during its first two hundred years and as continuing links to African, Asian, European, and other cultures (including those of the American Indian) which have enriched American civilization. Dr. Margaret Mead, American Museum of Natural History, is honorary chairperson of the two-year program, which will begin with public lectures, workshops, and discussion groups on June 14-16, 1976. Administration of the Smithsonian's international symposia series included publication in June 1975 of The Nature of Scientific Discovery, based on the Institution's fifth symposium (April 1973).

A major international conference, "The United States in the World," will be held in Washington September 26-October 1, 1976, sponsored jointly by the Smithsonian, the American Council of Learned Societies, and the American Studies Association. About two hundred scholars and specialists from other countries are being invited to examine the differences two hundred years of American culture have made in other parts of the world. The conference is designed around three major themes: science and technology, politics and society, and arts and the media.

Continuing its consulting and resource services, the Office also is assisting in the Bicentennial program, "From Religious Toleration to Freedom of Religion," to be held in Newport June 1-6, 1976, under auspices of Brown and Columbia Universities and the Redwood Library of Newport, oldest United States library (in continuous use since 1748).

The requested increase of one position (\$9,000) will provide full-time assignment to the Office of Smithsonian Symposia and Seminars of an employee now serving as its assistant director, but whose time and costs are shared with another office. The increasing responsibilities and workload of the Institution's symposia and seminar programming and the development of related educational materials make this an urgent need.

Office of Elementary and Secondary Education - A major objective of the Office of Elementary and Secondary Education is to make Smithsonian resources for learning available to the area school community. These efforts take the form of planning and conducting teacher workshops, developing audiovisual materials, preparing school publications, and supervising a teachers' resource center. The preparation of materials for a national teacher audience is also of high priority.

This office coordinates education programs which are located in the museums. It prepares publications, audiovisual aids, and other educational materials, directed at pre-college students and their teachers. It also serves as the liaison between the

Smithsonian and the D.C. metropolitan area schools, conducting workshops for over 2,500 teachers in FY 1976. The office is active with area schools in developing special outreach projects. FY 1976 brought the development of outreach kits with both Fairfax County, Virginia, and Montgomery County, Maryland, teachers. During FY 1976, the initial steps were taken to prepare materials and workshops for a national teacher audience. A national classroom newspaper entitled Art to Zoo was tested with over 250 teachers in 35 schools across the country. Following this pilot project and evaluation period, regular publication of this newspaper will begin during the 1976-1977 school year. Through regularly scheduled training activities, assistance is provided to the Smithsonian docent program with particular emphasis on teaching techniques.

An increase of \$5,000 is requested to the FY 1977 budget for the purpose of producing a museum teaching resource booklet for schools. This booklet will contain a compilation of projects from the classroom newspaper Art to Zoo and other exemplary teaching units developed by the Office and museum staffs. The booklet will also contain an annotated listing of Smithsonian outreach materials, audiovisual packages, and printed materials developed by the various museum education offices. Production and distribution of this booklet are an important next step to extend Smithsonian educational resources to a national audience. It will represent the first effort ever made by the Smithsonian Institution to provide a comprehensive package of museum teaching methods and information for a national teacher audience.

SMITHSONIAN RESEARCH AWARDS PROGRAM

1975 Actual..... \$450,000
 1976 Estimate..... \$450,000
 1977 Estimate..... \$600,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>0</u>	<u>0</u>	<u>0</u>
41 Grants.....	<u>450</u>	<u>150</u>	<u>600</u>
TOTAL	<u>450</u>	<u>150</u>	<u>600</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		0	
Program Funds.....		150	

ABSTRACT - The Research Awards Program finances special research projects which cannot be supported from the regular budgets of the bureaus. Since 1966, over 300 such special projects have been funded through this program and have resulted in more than 300 publications. As this program is one of the most scientifically productive ones of the Institution, a program fund increase of \$150,000 is being requested for FY 1977.

PROGRAM - Prior to FY 1966, Smithsonian scientists applied for funds competitively from the National Science Foundation (NSF) for research projects as individual staff members. In 1964, however, the Congress limited the authority of the NSF to make grants for scientific research to individual Federally employed scientists. The Research Awards Program was thus begun in FY 1966 by an appropriation of \$350,000 to the Smithsonian Institution to replace partially those research funds theretofore competitively available from NSF.

To ensure that quality is maintained, proposals are submitted each year by members of the Smithsonian Institution staff to an outside advisory committee of senior scientists. Awards are made on the basis of creativity and imaginative new approaches to research and scholarship. Consideration is also given to how the results of such research might possibly be applied to current problems.

The flexibility afforded the researchers by the Research Awards Program has produced valuable results. Research teams have been formed which encompass several disciplines. Students have been hired for work in the field, and the Institution has been able to work very closely with similar organizations and universities both in this country and abroad. Some examples of results that have potential economic and political value are the development of techniques for monitoring whale populations, the analysis of animal and bird parasites as potential vectors of human diseases, and how to use balloons to carry telescopes high enough to avoid some of the barriers imposed by the earth's atmosphere. Information thus gained has a direct bearing on human nutrition, human disease, and understanding potential new energy sources in space.

JUSTIFICATION OF \$150,000 INCREASE (Research) - The program is highly competitive in that only 37 of 64 proposals were funded before the limit of \$450,000 was reached. The 64 proposals submitted represented a total of \$1,790,000. Many excellent projects, therefore, had to be turned down. There has been no funding increase in this program since FY 1973. The Institution has put a very high priority on requesting additional funds of \$150,000 to offset what has been lost by inflation and more positively to encourage and sustain the quality of research for which the Smithsonian is justly known.

OFFICE OF THE SECRETARY

1975 Actual.....\$800,000
 1976 Estimate.....\$807,000
 1977 Estimate.....\$830,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	29	0	29
11 Personnel Compensation.....	594	21	615
12 Personnel Benefits.....	54	2	56
21 Travel & Trans. of Persons...	8		8
23 Rent, Comm. & Utilities.....	19		19
24 Printing and Reproduction....	2		2
25 Other Services.....	93		93
26 Supplies and Materials.....	22		22
31 Equipment.....	15		15
TOTAL	807	23	830
<u>Analysis of Increase</u>			
Necessary Pay.....		23	
Program Funds.....		0	

ABSTRACT - The Office of the Secretary is responsible for planning, implementing, and reviewing the progress of all Smithsonian operations. No program increase is requested. Funding of \$23,000 is sought for necessary pay for current staff.

PROGRAM - I. Immediate Office of the Secretary including the Office of the Under Secretary and Secretary's Files: With base resources of 19 positions and \$517,000, the Office of the Secretary with the assistance of the Office of the Under Secretary is responsible for the formulation and performance of all programs of the Institution which include: the establishment of objectives and priorities; budget formulation and execution; changes in current programs; and legislative proposals and implementation of all statutory requirements; all of which culminate in decision-making affecting total Smithsonian operations.

II. Other - The remainder of the resources identified for this Office, ten positions and \$290,000, fund the Director of Support Activities, the Travel Services Office, and the Curator of the Smithsonian Institution Building.

The Director of Support Activities directs and reviews the Support Activities group. This group includes the Office of Personnel Administration, Office of Equal Opportunity, Office of Supply Services, Office of Computer Services, Management Analysis Office, Office of Protection Services, Office of Facilities Planning and Engineering Services, Office of Plant Services, and the Office of Printing and Photographic Services--all justified elsewhere--and the Travel Services Office.

The Travel Services Office assists official Smithsonian travelers in developing domestic and foreign plans, estimating costs, and planning the most economical routing in keeping with Government and Smithsonian Institution regulations. In FY 1975 the Office, with the Institution's Accounting Division, implemented a new automatic payment procedure system for the purchase of airline tickets. In connection with the eighth annual Festival of American Folklife, the Office assisted in planning for and providing tickets to foreign participants from Greece, Nigeria, Scandinavia, and Tunisia, including a tour of the United States.

The Curator of the Smithsonian Institution Building is responsible for the selection and acquisition of artifacts and materials for exhibition in this historic building for viewing by the public. The Curator is also responsible for authentic furnishing of public spaces in this building as well as other buildings.

OFFICE OF THE GENERAL COUNSEL

1975 Actual..... \$314,000
 1976 Estimate..... \$330,000
 1977 Estimate..... \$345,000

s in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
r of Permanent Positions...	11	0	11
Personnel Compensation.....	285	14	299
Personnel Benefits.....	25	1	26
1 Travel & Trans. of Persons...	5	5	5
23 Rent, Comm. & Utilities.....	5	5	5
25 Other Services.....	3	3	3
26 Supplies and Materials.....	4	4	4
31 Equipment.....	3	3	3
TOTAL	330	15	345
<u>Analysis of Increase</u>			
Necessary Pay.....		15	
Program Funds.....		0	

ABSTRACT - The Office of the General Counsel (OGC) is responsible for all Smithsonian legal matters. These legal matters combine those arising from the operations of a university-like, charitable corporation with those common to Government organizations. No program increase is requested for FY 1977. An increase of \$15,000 is requested for necessary pay for current employees.

PROGRAM - The OGC serves as counsel to the Board of Regents, the Secretary, and the staffs of bureaus, programs, and support offices of the Institution on the legal adequacy of proposed administrative actions and decisions and on the resolution of legal problems arising from operations. As such, the scope and volume of the OGC's workload parallel the direction of and developments in the diverse programs of the Institution. The legal problems combine those arising from the operations of a university-like, charitable corporation with those common to Government organizations, and include: the limitations and obligations of Smithsonian operations in relation to the functions, authorities, and regulations of Government entities; legislative review, drafting, and liaison; the uses and restrictions of trust funds; litigation; application of judicial decisions and executive branch directives and regulations; contract negotiation; tort claims and settlements; Federal and State excise, sales, and gift taxes, deductions, and exemptions; patents and trademarks; copyrights; review of transfers by gift, loan, purchase, or bequest; and many areas of international law.

OFFICE OF THE TREASURER

1975 Actual.....\$711,000
 1976 Estimate.....\$866,000
 1977 Estimate.....\$885,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	36	0	36
11 Personnel Compensation.....	583	17	600
12 Personnel Benefits.....	142 ¹	2	144
21 Travel & Trans. of Persons...	4		4
23 Rent, Comm. & Utilities.....	100		100
24 Printing and Reproduction...	10		10
25 Other Services.....	25		25
26 Supplies and Materials.....	1		1
31 Equipment.....	1		1
TOTAL	866	19	885
<u>Analysis of Increase</u>			
Necessary Pay.....		19	
Program Funds.....		0	

ABSTRACT - The Office of the Treasurer has overall responsibility for the financial assets of The Smithsonian Institution. No program increase is sought for FY 1977. An additional amount of \$19,000 is sought for necessary pay for existing staff.

PROGRAM - The Treasurer, as chief financial officer of the Institution, assisted by the various important staff offices described below, carries primary responsibility for Smithsonian financial and accounting functions. These include overall direction for financial planning and budgeting, accounting and financial reporting functions, administration of grants and insurance, management of business-type operations, bank relations, and oversight for handling of investments. As noted below, continuous efforts are made to achieve more efficient procedures to handle expanding demands upon these support functions with minimum additions to staff.

The Office of Programming and Budget participates in program planning for the Institution. As such, it is responsible for formulation, presentation, implementation, and review of operating and construction budgets for both appropriated and non-appropriated funds. In carrying out these responsibilities this office works closely with all operating and managerial levels of the Institution and participates in presenting Federal budgets to the President's Office of Management and Budget and the Congress. During the past year improved planning for budget submissions was assisted by planning statements and detailed analysis of currently available financial resources obtained in advance from all operating units. The third annual meeting on Institution Goals and Priorities in June 1975 again proved to be a valuable tool for developing prudent allocation of the Institution's resources.

The Accounting Division handles all funds of the Institution, both Federal and non-Federal, including payrolls, payment for materials and services, receipt of incoming monies from a great variety of sources, and the regular provision of over 600 monthly financial reports to Institution managers. Important procedural improvements by this division in FY 1975 resulted in raising our reputation for prompt payments to vendors to among the best in the Washington area. In addition, the development of its Key-to-Disk data entry system, installed in May 1974, now permits data entry directly to the computer from various accounting documents thereby reducing clerical

¹ Includes \$85,000 payment to Workmen's Compensation Fund.

and keypunching operations. A major task force operation is now underway to bring about basic updating of accounting and related procedures.

The Grants and Insurance Administration Division, which administers gifts, grants, and contracts received by the Institution as well as our risk management and insurance program, also achieved important improvements in FY 1975. The development of an Institution-wide means of handling insurance risks substantially reduced these costs. The negotiation of a new formula for assessing administrative costs to the Institution's grants and contracts in line with changes in the Institution's activities has brought about a realistic updating of such charges, with benefits both to granting agencies and to our research scientists.

In our Business Management and Investment Accounting Divisions, the continual efforts to achieve sound contracting and investing procedures, as well as improved operation of our Museum Shops and arrangements for restaurants and parking facilities have resulted in better services for our visiting public and a strengthened financial position.

OFFICE OF PERSONNEL ADMINISTRATION

1975 Actual.....\$620,000
 1976 Estimate.....\$712,000
 1977 Estimate.....\$786,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	34	2	36
11 Personnel Compensation.....	611	48	659
12 Personnel Benefits.....	55	4	59
21 Travel & Trans. of Persons...	4		4
23 Rent, Comm. & Utilities.....	6		6
24 Printing and Reproduction...	1		1
25 Other Services.....	30		30
26 Supplies and Materials.....	4		4
31 Equipment.....	1	22	23
TOTAL	712	74	786
<u>Analysis of Increase</u>			
Necessary Pay.....		18	
Program Funds.....		56	

ABSTRACT - The Office of Personnel Administration (OPA) is responsible for providing services in the following program areas: recruitment and placement; classification and compensation; performance appraisal; benefits; retirement; awards and recognition; leave administration; employee relations; training and development; manpower analysis; personnel management evaluation; labor-management relations; and other personnel programs and services. A program increase of 2 positions and \$56,000 is requested to improve services provided by this Office. An additional amount of \$18,000 is sought for necessary pay for existing staff.

PROGRAM - The Office of Personnel Administration is responsible for recruitment, placement, position classification, training and career development, employee relations, labor-management relations, and equal opportunity as it relates to personnel management. The Office also has the responsibilities for implementing new laws and policies and making contributions to Smithsonian-wide efforts, such as reducing personnel costs.

In FY 1975 more than 1,200 recruitment requests were submitted by the units and 8,000 job inquiries were received from perspective employees. New employees in FY 1975 numbered 1,789, while 1,342 separations occurred. Recruitment activity was concentrated in the Hirshhorn Museum and the Bicentennial Programs.

Negotiations with the United States Civil Service Commission resulted in the issuance of a police officer examination announcement for the Smithsonian Institution. The announcement--a new method of announcing recurring vacancies--significantly reduced the time-lag between the advertising of vacancies and the filling of these critical positions.

Labor-management relations continued to reflect mutual respect and cooperation. Negotiations for a multi-unit labor agreement were concluded after difficult bargaining, and consultations were held with the unions on a number of subjects in accordance with existing agreements. Also, formal grievance and complaint procedures were utilized in several instances, and these problems were resolved subsequently.

Ten new courses were offered by the Training Office for both professional and support staff. These courses ranged from Labor Management Relations to English Usage Refresher and Filing for Secretaries. In addition, courses of a more general nature were offered, such as General Education Development (leading to a High School Equivalency Certificate), and, for female employees, the Sexual Assault Prevention Program conducted by the Smithsonian Office of Protection Services. Another new course was the Career Planning Workshop which was open to professionals and nonprofessionals alike. These courses, coupled with the regular courses, enabled training to be offered to 1,433 employees in the past year: 591 in courses offered inhouse, 828 in courses outside of the Smithsonian, and 14 in executive development courses.

In FY 1976 a formal position classification program was implemented with the position descriptions for the entire Institution being reviewed. New descriptions were prepared where necessary. In the first half of FY 1976, 3,000 personnel actions have been processed. Recruitment has continued on Bicentennial Programs and also for the staffing of the National Air and Space Museum.

Future plans for FY 1976 include initiation of a system to provide supplemental instructions to the Federal Personnel Manual to Smithsonian managers. A direct terminal will be installed in the Office of Personnel Administration linked to the Smithsonian Institution computer, reducing manual work and providing better quality control to official records.

The Office of Personnel Administration also will seek two ways to bring vacancy announcements to the attention of employees. In several buildings a special telephone will be installed which will relay vacancy announcements to interested staff. Plans also are being developed to place additional bulletin boards in key locations to display printed vacancy announcements.

Plans for FY 1977 include the training of Smithsonian managers in the United States Civil Service Commission's new approach to the classification of positions. In April 1976 the United States Government will change the classification of positions from the present "whole position" approach to a "factor analysis" approach.

JUSTIFICATION OF \$56,000 INCREASE (General Administration) - Two new positions are requested for FY 1977 at a cost of \$34,000: a personnel management specialist, who will be involved in labor-management relations, classification, legislation, policy development, and writing; and a clerk-typist to assist him. A new filing system (\$22,000) is requested which will be used for all official personnel folders. Current equipment is obsolete and insecure, especially in light of the new Privacy Act.

OFFICE OF AUDITS

1975 Actual..... \$182,000
 1976 Estimate..... \$205,000
 1977 Estimate..... \$213,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>7</u>	<u>0</u>	<u>7</u>
11 Personnel Compensation.....	178	7	185
12 Personnel Benefits.....	14	1	15
21 Travel & Trans. of Persons...	5		5
25 Other Services.....	6		6
26 Supplies and Materials.....	1		1
31 Equipment.....	<u>1</u>	<u> </u>	<u>1</u>
TOTAL	<u>205</u>	<u>8</u>	<u>213</u>

Analysis of Increase

Necessary Pay.....	8
Program Funds.....	<u>0</u>

ABSTRACT - The Institution's size, diversity, and variety of funding sources create a large volume of essential auditing assignments. Since its establishment, the Office of Audits has made important contributions to effective management. For FY 1977 an amount of \$8,000 is required for necessary pay for existing staff. No increase in program funds is sought.

PROGRAM - The Office of Audits, established in FY 1970, is responsible for performing all internal auditing functions of the Smithsonian Institution. With more than 50 Federal operating units, programs, and staff offices, several major appropriation accounts (totalling about \$96 million in FY 1976), and several private activities and a wide variety of other funds, there is a large volume of auditing to be done. In order to ensure the utilization of effective management practices, it is the policy of this office to audit all principal programs, including administrative, financial, and supporting programs during each five-year period. It is estimated that it would take a total of ten auditors to implement the five-year reaudit program. Recent audits have included a review of the Smithsonian's procurement practices, the Smithsonian Traveling Exhibition Service, the Office of Protection Services, and the Division of Performing Arts.

OFFICE OF EQUAL OPPORTUNITY

1975 Actual.....\$125,000
 1976 Estimate.....\$148,000
 1977 Estimate.....\$203,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	<u>6</u>	<u>5</u>	<u>11</u>
11 Personnel Compensation.....	130	50	180
12 Personnel Benefits.....	11	5	16
21 Travel & Trans. of Persons...	1		1
25 Other Services.....	4		4
26 Supplies and Materials.....	1		1
31 Equipment.....	1		1
TOTAL	<u>148</u>	<u>55</u>	<u>203</u>
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Program Funds.....		50	

ABSTRACT - The Office of Equal Opportunity (OEO) works to assure equality of opportunity in employment and in all policies and practices of the Institution. Several current programs involve the development and better utilization of the skills of employees occupying dead-end or low-graded positions through an Upward Mobility Program, an improved communication system for handling complaints, and an improvement of women's career advancement opportunities. A program increase of 5 positions and \$50,000 is requested to further implement the Upward Mobility Program. An amount of \$5,000 is being requested for necessary pay for current staff.

PROGRAM - The Equal Opportunity Program, established by Executive Order 11246 and further implemented by the "Equal Employment Opportunity Act of 1972" (P.L. 92-261), requires the Smithsonian to conduct a positive action program which will provide true equality in all Smithsonian employment practices. It is the responsibility of the Office of Equal Opportunity to conduct such a program. Major efforts currently underway include counseling, upward mobility, a Women's Program, a Sixteen Point Program for the Spanish-speaking, and assuring equality of opportunity through affirmative action.

The Counselor Program provides a channel through which employees may raise questions, discuss complaints, and receive resolutions of problems on an informal basis. Counselors, 26 permanent employees with regular duties who work part-time on OEO matters, handled over 200 inquiries with only eight formal complaints filed, illustrating that the pre-complaint system is working.

The Smithsonian Institution's Upward Mobility Program provides a comprehensive approach to ensure that upward mobility is facilitated throughout the Institution. This program reinforces the Smithsonian's commitment to provide upward mobility training and career opportunities for eligible employees at the lower grade levels so that they may perform and advance in accordance with their highest potential. The Program provides an additional means to achieve equal opportunity in employment and greater utilization of all Smithsonian employees at the bureau and office levels. Six upward mobility programs are now operating in the National Museum of Natural History, Office of Plant Services, National Zoological Park, the Freer Gallery, National Air and Space Museum, and the National Museum of History and Technology. Additionally, the Office of Equal Opportunity oversees Smithsonian civil rights compliance with direct assistance programs and contracts and grants to ensure that the recipients practice equal opportunity.

The Women's Coordinator Program functions as the principal advisory service to management on all matters pertaining to the equal employment status of women. The Smithsonian Women's Coordinator was appointed as Smithsonian representative to International Women's Year, a United Nation's Observance. The Institution held its successful third Women's Week in August.

The 16 Point Program Coordinator--a regular employee who has accepted these extra duties--serves as the focal point within the Smithsonian for advising agency management and the Director of OEO on the special employment concerns of Spanish-speaking citizens, assists in assessing the Spanish-surnamed employment situation, and participates in eliminating systemic barriers for Spanish-speaking citizens.

The Office of Equal Opportunity is developing and implementing training to enable counselors to process complaints because of age in accordance with the Civil Service Commission Federal Personnel Manual Letter 713-28. Personnel actions will continue to be reviewed by the OEO on a monthly basis in order to monitor statistical improvement. A further aim, to underline positive Affirmative Action Plan results, will be to report on a regular basis successes and failures as they occur. From failures in the calendar year 1975 Plan of Action, from problems which develop within the Smithsonian, and from consultations with employee groups and managers, the OEO will plan the Action Plan for 1976 for submission for Civil Service Commission approval. The Office will continue to conduct programs demonstrating achievement exemplified in such activities as Achievement Awards, Women's Week, and programs of similar worth.

JUSTIFICATION OF \$50,000 INCREASE (General Administration) - An Institution-wide Upward Mobility Program has been developed to provide a comprehensive approach throughout the Smithsonian. All bureaus and offices are now able to participate in the planning and development of upward mobility programs consistent with their individual organizational requirements. Six upward mobility programs of 18 trainees are now in operation in six bureaus and offices. These programs and the trainees are progressing, and improvement is anticipated under the comprehensive approach.

Frequently units are reluctant to nominate candidates for upward mobility training because it would deprive that unit of a needed employee during the training period. In order to provide additional opportunities for upward mobility training, a pool of five new positions is requested with annual funding of \$50,000. When a current employee is selected for upward mobility training, that employee will be financed with these funds while the unit will be allowed to replace the trainee with another employee to accomplish needed work. It is expected that the trainees will be financed from these funds for periods ranging from six months to one year at which time they will be placed in existing vacancies in the bureaus and offices. At that time, the trainee's position and funds will revert to this requested pool for reassignment to a new upward mobility candidate.

OFFICE OF PRINTING AND PHOTOGRAPHIC SERVICES

1975 Actual.....\$812,000
 1976 Estimate.....\$867,000
 1977 Estimate.....\$882,000

(Dollars in thousands)	Base	Increase	Est.
	FY 1976	Requested	FY 1977
Number of Permanent Positions...	39	0	39
11 Personnel Compensation.....	612	13	625
12 Personnel Benefits.....	55	2	57
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	9		9
24 Printing and Reproduction...	20		20
25 Other Services.....	53		53
26 Supplies and Materials.....	98		98
31 Equipment.....	18		18
TOTAL	867	15	882
<u>Analysis of Increase</u>			
Necessary Pay.....		15	
Program Funds.....		0	

ABSTRACT - The Office of Printing and Photographic Services (OPPS) is the Institution's central office for technical advice, guidance, and production in all matters concerning photographic, duplicating, and inhouse printing services. The office coordinates photographic and printing activities and supplies technical support to the curatorial, scientific, technical, and administrative staffs. It also provides photographs, slides, and transparencies with lectures to the general public, schools, research foundations, educational publications, other museums, and government agencies. No program increase is requested for FY 1977. An amount of \$15,000 is sought for necessary pay for current staff.

PROGRAM - OPPS provides photographic, printing, and other reproduction services in support of research, collections management, and public education. Photographic services include studio and on-site photography, photographic copy restoration, processing and printing, filing and retrieval of negatives, preparing responses to public inquiries, and filling orders. Most of the photographic assignments are carried out in the photographic studios located in the major exhibition buildings as standard museum practice does not allow valuable specimens to be moved out of the building. This practice is necessary to prevent deterioration by improper handling, changes in environment, or loss. There are presently four photographic studios under the jurisdiction of this office. One is located in the History and Technology building, one in the Natural History building, one in the Arts and Industries building, and one in the National Air and Space building. In FY 1975, the Office processed some 120,000 color slides and transparencies and produced more than 200,000 black and white prints.

Printing and reproduction services include the production of certain exhibits catalogues, education pamphlets, and information leaflets. In addition, OPPS prints and reproduces a variety of manuals, reports, specimen labels, and administrative directives. These services are accomplished through the use of inhouse multilith, electrostatic copier, and letterpress equipment.

OFFICE OF COMPUTER SERVICES

1975 Actual.....\$444,000
 1976 Estimate.....\$502,000
 1977 Estimate.....\$594,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions..	23	2	25
11 Personnel Compensation.....	425	36	461
12 Personnel Benefits.....	37	4	41
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	23		23
25 Other Services.....	10	51	61
26 Supplies and Materials.....	2		2
31 Equipment.....	3	1	4
TOTAL	502	92	594
<u>Analysis of Increase</u>			
Necessary Pay.....		16	
Program Funds.....		76	

ABSTRACT - Computer specialists, mathematicians, statisticians, and support personnel of the Office of Computer Services (OCS) develop and apply mathematical techniques for research projects and design systems and programs for automated administrative and collections management applications. An increase of 2 positions and \$76,000 is requested in FY 1977 to meet the following support needs: (1) an additional mathematician (\$12,000) and support funds (\$1,000) to meet an increasing demand for mathematical and statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research; (2) a computer specialist (\$12,000) and support funds (\$1,000) to permit expanded use of ADP in the collections management and administrative areas; and (3) funding of \$50,000 to give the professional research staff and others an interactive processing capability. An additional amount of \$16,000 is requested for necessary pay for current staff.

PROGRAM - Computer specialists, mathematicians, and support personnel in OCS work with curators, historians, scientists, and management personnel to apply mathematical techniques, such as statistical analysis, mathematical modeling, data reduction, and cluster analysis, to research problems and to develop automated administrative and collections management systems. Approximately 75 percent of the Office's resources are expended in support of research and collections management while the remainder is used on management support functions, such as accounting, payroll, and procurement. Work performed by OCS contributes annually to producing information that is published in approximately 100 scientific publications.

Presently, to reduce development costs, scientific and collections management computer programs are being developed that can be utilized in many areas with minor modifications. The Office maintains a computer program library containing over 350 active programs and is currently serving researchers, curators, and administrators throughout the Institution. The Smithsonian's main collections data management system, SELGEM, has been distributed to over 50 universities, government agencies, and other museums, representing valuable assistance to those institutions.

JUSTIFICATION OF \$76,000 INCREASE (Automatic Data Processing):

Scientific Research Applications - An increasing demand for mathematical and

statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research has outstripped current resources. Seven departments in the National Museum of Natural History and ten other bureaus are major users of these resources. Projects vary from the application of mathematical/statistical techniques to solve day-to-day research needs, to reducing large quantities of data from electron microprobe equipment, to portraying research information in a graphic form. During FY 1976, the present staff of four will be involved with projects such as those concerned with ecological studies, animal behavior, radiation analysis, and anthropological studies, to name a few.

The Institution initiated a study several years ago to develop data for a five-year ADP plan for the planning and efficient allocation of resources. This plan, which is updated annually, is based upon historical experience and projected needs in all areas of ADP usage. Based upon the recent update, a backlog of five man-years of effort is projected for FY 1977 in the area of research applications. Since it is estimated a mathematician can complete approximately two projects per month, this backlog is equivalent to approximately 120 projects. Backlogged projects will extend across the entire museum complex from art to zoology. Additional staffing of one mathematician (\$12,000) and support funds of \$1,000 for equipment, supplies, training, and computer time will reduce the projected backlog for FY 1977 to four man-years.

Collections Management and Administrative Applications - To assist in the management of the National Collections, the Institution has developed a general purpose information system called SELGEM. Although still under development, SELGEM has become widely recognized, particularly in the museum community, as a reliable vehicle for information processing. Current SELGEM development is centered on reducing processing costs and extending application of the system throughout the various museums to provide automated retrieval and indexing of data pertaining to the National Collections. Results benefit the professional staff by providing catalogues, cross-referencing indexes by categories, correlation of data, better inventory control and a future vehicle for responding to technical and non-technical queries by the research community or general public. Automated files now permit curators, researchers, and scientists to analyze, present, and interpret their data in ways that were impractical with manual files. The system also allows for an economical means of exchanging data via magnetic tape without physically transporting specimens or visiting other locations. In FY 1977 seven man-years of effort are available for systems analysis, computer programming, program maintenance, documentation, and customer liaison in the collections management area.

To date, approximately 2,500,000 specimens have been indexed into over 300 distinct collections management files and over 200 various processing requests are performed monthly against those files. From past experience it is estimated that 30 to 35 percent of a computer specialist's time is devoted to continual maintenance and liaison once a project is considered in production. Based upon the aforementioned five-year resource study, a backlog of five man-years is projected for collections management applications in FY 1977.

Administrative applications of ADP resources involve areas such as payroll, personnel, libraries, accounting, supply, public service, and plant and protection services. The six man-years of effort available to the above areas for systems analysis, computer programming, program maintenance, documentation, and customer liaison fall short of filling current requirements, and a four man-year backlog of work is projected by FY 1977. Of major concern is the Institution's need to enhance the use of ADP with remote job entry processing, source data automation teleprocessing, and optical character reading.

Staffing of one computer specialist (\$12,000) and support funds of \$1,000 for equipment, supplies, training, and computer time are requested to assist in reducing the backlogs in the collections management and administrative areas.

Interactive Processing Capability - In 1975 a panel of Smithsonian administrative and scientific personnel, convened by the Secretary, completed a comprehensive review of computer services currently available to the Institution as compared with the computer needs of the staff. Special emphasis in the study was directed to OCS activities. The group strongly recommended that the Institution move to acquire an interactive processing capability, principally to serve the needs of individual researchers, including visiting students and scholars, but also to be available to meet the needs of business managers. Such an interactive capability, which is not now provided by the current computer, allows a user to work directly with a computing system without the delays and interruptions posed by coding, keypunching, batch processing, and slow turn-around time. In the research area, this capability would allow scientists and historians to follow individual lines of investigation by personally performing calculations or comparisons (e.g., on environmental data associated with endangered plants or animals) in one continuous mental process, submitting data, getting results, testing hypotheses, and if necessary revising the approach. In the business management area, this capability would permit much quicker and more accurate processing in areas where up-to-date information is particularly important, such as on inventory levels. Funding of \$50,000 is sought to provide this capability either by the purchase of commercial services or by the leasing of equipment on a cost-shared basis with user units, whichever is determined to be most cost effective.

OFFICE OF SUPPLY SERVICES

1975 Actual.....\$448,000
 1976 Estimate.....\$483,000
 1977 Estimate.....\$523,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	26	1	27
11 Personnel Compensation.....	334	25	359
12 Personnel Benefits.....	30	2	32
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	14		14
24 Printing and Reproduction...	3		3
25 Other Services.....	11		11
26 Supplies and Materials.....	86	11	97
31 Equipment.....	3	2	5
TOTAL	483	40	523
<u>Analysis of Increase</u>			
Necessary Pay.....		15	
Program Funds.....		25	

ABSTRACT - The Office of Supply Services (OSS) procures supplies, materials, contractual services, and equipment for Smithsonian activities. The FY 1977 budget seeks an increase of 1 position (\$12,000) to handle an increasing number of procurement actions. An amount of \$13,000 is sought to purchase essential stockroom inventory items. Funding in the amount of \$15,000 is required for necessary pay for existing staff.

PROGRAM - The Office of Supply Services procures supplies, materials, contractual services, and equipment for research, curatorial, exhibit preparation, and other Smithsonian activities. OSS stocks and issues United States Government and Smithsonian Institution standardized office supplies such as letterhead paper, envelopes, and forms required in daily management operations and serves as a central receiving unit for the Institution. It also procures, stocks, and distributes all photostatic copier paper used by the Smithsonian's Washington area offices. It operates a property management program obtaining excess property in lieu of new procurement whenever possible. OSS also maintains all property records and schedules and oversees periodic inventories to ensure adequate control, accountability, security, and utilization of equipment.

In FY 1975, an estimated 650 contracts valued in excess of \$15,000,000 and approximately 9,200 procurement actions valued in excess of \$10,000,000 were handled by this Office. Present information indicates an appreciable increase in workload in FY 1976 and FY 1977.

In FY 1975 portions of the Office of Supply Services' administrative stockroom were decentralized. Funds were transferred to Smithsonian Washington area offices and bureaus, allowing these units to purchase directly from GSA stores items such as pens, pencils, and other small office supplies used in their day-to-day operations. Resulting benefits are: (1) freeing of OSS procurement agents to handle the burgeoning number of contracts and non-office supplies procurements; (2) offices and bureaus can make direct purchases of small office supplies as they are needed; and (3) freeing space that was needed to stock these supplies.

JUSTIFICATION OF \$25,000 INCREASE (General Administration) - During the first half of FY 1976 the Office of Supply Services enacted a number of austerity measures designed

to cope with the diminishing effect of inflation on stockroom inventories and to handle an increasing number of contracts and procurement actions occasioned by the general expansion in many Smithsonian programs. Chief among these measures are increased emphasis on bulk purchasing to take advantage of vendor discounts when possible and a reorganization within OSS to utilize more fully current personnel resources. Still, OSS is unable to maintain sufficient inventory levels to provide supplies to Smithsonian units as they are needed; nor is current staff able to keep pace with the increased number of contracts and procurement actions which it is required to process annually.

Additionally, the Smithsonian Office of Audits concluded a study of OSS in late FY 1975 in which its major finding was that Supply needed to establish a telephone order desk procedure whereby numerous purchases currently being made by the Smithsonian Washington area offices directly with vendors instead could be phoned into OSS and consolidated into reduced numbers of procurements. Some cost savings will be possible as a result of larger purchases and the prompter receipt and processing of invoices, thus assuring that discounts can be taken. The principal benefit will be the reduction of paperwork in the ordering units and in the Accounting Division by doing away with the forms now associated with units' direct purchasing. One procurement agent (\$12,000) is requested to establish and man this new telephone order desk and to help alleviate current procurement backlogs. An additional amount of \$13,000 is requested to purchase and stock essential supplies needed to support research, curatorial, and exhibits-related activities in the Washington area.

MANAGEMENT ANALYSIS OFFICE

1975 Actual.....\$201,000
 1976 Estimate.....\$231,000
 1977 Estimate.....\$236,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	10	0	10
11 Personnel Compensation.....	198	4	202
12 Personnel Benefits.....	17	1	18
23 Rent, Comm. & Utilities.....	7		7
24 Printing and Reproduction....	1		1
25 Other Services.....	5		5
26 Supplies and Materials.....	3		3
TOTAL	231	5	236
<u>Analysis of Increase</u>			
Necessary Pay.....		5	
Program Funds.....		0	

ABSTRACT - The Management Analysis Office (MAO) performs a wide range of general management staff assistance and advisory services related to museum, research, and support operations in the Smithsonian. No program fund increase is requested for FY 1977. Necessary pay in the amount of \$5,000 is sought for current staff.

PROGRAM - Under the executive direction of the Director of Support Activities, the Management Analysis Office is responsible for assisting in the development, recommendation, and implementation of effective business administration and management improvement programs.

The Office provides management advisory services, makes studies of systems and procedures particularly as they relate to proposed administrative instructions, and assists in the evaluation and analysis of management problem areas. Staff consultants provide specialized information to aid Smithsonian staff managers in such areas as the development of organizational, functional, staffing, and flow charts; planning and development of internal procedures; and implementation of management improvement programs.

MAO is responsible for the overall development and administration of the directives management system through which proposed Smithsonian procedures and policies are reviewed, coordinated, and approved by the Secretary before being disseminated and implemented. In addition, the Management Analysis Office provides for the administration and management of a comprehensive forms program for internal and external operations of the Smithsonian's various programs.

Significant projects completed or initiated during FY 1975 included publishing new staff handbooks on correspondence, automatic data processing, and identification credentials, and a second edition of the requisitioning (purchasing) handbook. At year's end, the handbook on travel procedures was in final form with publication scheduled for FY 1976.

OFFICE OF PROTECTION SERVICES

1975 Actual.....\$5,329,000
 1976 Estimate.....\$6,645,000
 1977 Estimate.....\$7,606,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	527	32	559
11 Personnel Compensation.....	5,530	862	6,392
12 Personnel Benefits.....	498	78	576
21 Travel & Trans. of Persons...	7		7
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction...	1		1
25 Other Services.....	377	21	398
26 Supplies and Materials.....	153		153
31 Equipment.....	77		77
TOTAL	6,645	961	7,606
<u>Analysis of Increase</u>			
Necessary Pay.....		224	
Program Funds.....		737	

ABSTRACT - The Office of Protection Services (OPS) is responsible for the protection, security, health, and safety programs of the Institution. An increase of \$737,000 and 32 positions is requested for FY 1977. Of this dollar amount, 71 percent is related to two new museums (National Air and Space Museum and Cooper-Hewitt Museum). The remaining 29 percent is related to new exhibitions, halls, and galleries to be opened during the Bicentennial celebration. Specifically, the request covers: (1) National Air and Space Museum--\$458,000 for the annualization of 55 new FY 1976 positions, \$11,000 for the annualization of support costs, \$12,000 and 1 position for a registered nurse, and \$14,000 and 1 position for an electronics technician; (2) Cooper-Hewitt Museum--\$26,000 for the annualization of 14 new FY 1976 positions; and (3) New Exhibitions--30 guards (\$206,000) and support funds of \$10,000 to provide coverage for new halls and galleries. An amount of \$224,000 is also sought for necessary pay for existing staff.

PROGRAM - The Office of Protection Services is charged with two major missions: (1) to secure and protect 12 major and several lesser facilities in the Washington area, including their collections, employees, and visitors; and (2) to ensure a safe and healthful environment for employees and an annual public visitation of almost 18 million persons to buildings on and near the Mall. These responsibilities stem primarily from Public Laws 82-206 and 88-391 relating to the policing and grounds of the Smithsonian Institution and its constituent bureaus, and Public Law 91-596 and E.O. 11807 which deal with occupational health and safety. Additionally, the OPS provides policy guidance on security and safety matters for the entire Institution, whether in Washington or elsewhere.

The OPS carries out its mission through a staff of guards and special police officers who guard and protect the facilities, staff, and visitors, and enforce laws on Smithsonian property; safety officials who administer occupational safety and health; medical staff who administer services to staff and visitors; technical personnel who work with electronic and other physical security systems; and administrative support personnel who are involved in managing the operation (including personnel, budget, training, investigative and clerical functions, and the like).

During FY 1975, the Smithsonian's canine program got underway with six handlers selected from the ranks of guards and police officers already authorized and with six dogs donated to the Institution by private citizens. The canine teams operate almost exclusively during the hours the buildings are closed to the public, conducting patrols either on foot or in vehicles. In the first half-year, the teams discovered and reported more than 300 safety and security hazards; have been involved in 22 police-type actions; and have rendered six assists to other police departments.

During FY 1976, the first comprehensive Institution-wide policies on security, safety, and health were completed. A comprehensive health services program is currently in the developmental stages and should be completed in FY 1977.

The first phase in the development of a Smithsonian-owned and operated alarm system control center was completed with the renovation of the space for the center and the installation of the first monitoring equipment. Although initially limited to the South Mall museums, the system will eventually cover all Smithsonian museums in the District. By converting from the current use of leased, externally-maintained and monitored equipment and systems, the Institution will enhance its ability to detect and handle emergency situations in the fastest possible time.

A new, modern central health unit was opened in the National Museum of History and Technology, and a first-aid station, open half-days, has been established in the Hirshhorn Museum. The health unit to be opened in the new National Air and Space Museum during the Transition Quarter will be the first full-time health unit on the south side of the Mall. During FY 1974, the health units provided 18,323 treatments (an average of 50 per day); during FY 1975, 22,231 treatments (an average of 61 per day); and during the first five months of FY 1976, 9,619 treatments (an average of 63 per day).

The number of misdemeanor and felonious incidents committed on Smithsonian Institution premises in 1975 declined by 16 percent from the total in 1974. Since 1971, there had been increases each year: in 1972, 19 percent over 1971; in 1973, 59 percent over 1972; in 1974, 0.3 percent over 1973. Significantly, in 1975 there was a 40 percent decline in the number of larcenies of government property. Extraordinary efforts were made in 1975 in an attempt to reduce larcenies, including the use of canine teams after hours and the use of plainclothes officers.

JUSTIFICATION OF \$737,000 INCREASE (Protection):

National Air and Space Museum - The FY 1976 budget approved the final increment of 55 positions required for protecting the new National Air and Space Museum, along with funds for one quarter of the year. An additional \$458,000 are required to annualize funding for the 55 positions, along with \$11,000 to annualize support costs. Two additional non-guard positions are required in FY 1977: one nurse to staff the new health unit (\$12,000) and one electronics technician to maintain fire and intrusion systems (\$14,000).

Cooper-Hewitt Museum - The FY 1976 budget authorized 14 positions for guards for the new Cooper-Hewitt Museum in New York City for three quarters of a year. An additional \$26,000 are required in FY 1977 to annualize the funding for these positions.

New Gallery and Exhibit Protection - In 1976 new halls, galleries, and exhibitions will be opening for the Bicentennial observance and will remain open thereafter for the public's education and pleasure. Included in this category are the "Nation of Nations" exhibit (with a new terrace entrance) in the History and Technology Museum, the Portrait Gallery's new third floor gallery, and the "1876" exhibition in the Arts and Industries Building. Certain of these spaces were not previously open to the public. In other cases,

the scope, layout, and contents of the new exhibits will require more extensive protection. Special Bicentennial Program funds will provide protection services to these areas during the summer of 1976 but will not be available the following year. An increase of 30 positions (\$206,000) with \$10,000 in support funds for services, supplies, and equipment is requested to provide long-term coverage of these areas.

Manpower and budget requirements for guarding are based on the designation of "posts." A post may be either one point (for example, an entrance to a museum) or an area, varying in size, based upon: the use of the area; the value of objects on display; the vulnerability of those objects to damage, theft, and vandalism; and the effective field of vision of the guard assigned to that post. The number of guards required to man one post may vary from one (the post must be manned eight hours a day, five days a week) to five (the post must be manned 24 hours a day, seven days a week). All the guard positions requested in this budget are for new exhibit areas. Even if all new positions are approved, the OPS will still be roughly 140 guards short for manning all currently designated posts. This number is equivalent to 82 guard posts.

OFFICE OF FACILITIES PLANNING AND ENGINEERING SERVICES

1975 Actual..... \$602,000
 1976 Estimate..... \$612,000
 1977 Estimate..... \$676,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions....	24	2	26
11 Personnel Compensation.....	512	47	559
12 Personnel Benefits.....	46	5	51
21 Travel and Trans. of Persons..	11		11
24 Printing and Reproduction....	6	2	8
25 Other Services.....	26	4	30
26 Supplies and Materials.....	7	2	9
31 Equipment.....	4	4	8
TOTAL	612	64	676
<u>Analysis of Increase</u>			
Necessary Pay.....		29	
Program Funds.....		35	

ABSTRACT - The Office of Facilities Planning and Engineering Services (OFPE) provides professional architectural and engineering services for the buildings and facilities management function, including long- and short-range planning, design, cost and budgetary estimates, contract supervision, construction management, engineering analysis, and general construction administration. For FY 1977 an increase of 2 positions and \$35,000 is requested to meet the following needs: (1) a planner/estimator (\$15,000) to provide in-depth analysis of construction projects and increased accuracy in cost estimating; (2) a clerk-typist (\$8,000) to assist in the timely preparation of data related to construction contracts; and (3) support funds of \$12,000 for related supplies, equipment, and contract services. An additional \$29,000 are requested for necessary pay for current staff.

PROGRAM - Planning and design, engineering, architectural, and construction supervision functions are important components of buildings and facilities management. Assistance provided by the Office of Facilities Planning and Engineering Services ranges from architectural/engineering consultation to full planning, engineering, and construction management services. Services may either be provided by staff professionals or by consultants. Projects include: major repair and maintenance; restoration and renovation; improvement and alterations including those needs associated with new exhibitions; site development; new construction; and long-range planning.

Through revision of management methods, improved staff professionalism, and restructuring of operating procedures, OFPE is striving to increase its overall production capability. In-depth analysis of construction projects, improved administration, and increased sophistication in cost estimating are resulting in more efficient construction planning and budgeting, and more effective utilization of appropriated funds. During FY 1976, emphasis is being placed on formulation of definitive long-range planning for facilities development together with preliminary budget estimates. In addition, approximately 200 individual repair, alteration, improvement, and restoration projects will be developed, processed, and administered. Major new projects in preliminary planning and development stages include South Yard, Museum Support Facility, and master plans for facilities at the Mt. Hopkins Observatory, Chesapeake Bay Center for Environmental Studies, and the Tropical Research Institute.

JUSTIFICATION OF \$35,000 INCREASE (Buildings and Facilities Management) - The large number of buildings comprising the physical plant require constant inspection, repair, and renovation for their protection, for the safeguarding and exhibition of museum collections, and for the safety and accommodation of staff and visitors. Specialized requirements supportive of research and education efforts further contribute to the facilities planning and engineering workload.

If this essential work is to be accomplished on an efficient and economical basis, extreme care must be taken in project planning and in the development of cost estimates. The accuracy of these estimates influences not only the planning/budgeting process but also the subsequent development and supervision of contracts. The variety, age, and historical importance of the facilities composing the Smithsonian's physical plant present unique problems in planning and budgeting for their renovation and improvement. With buildings ranging in age from new to over 120 years old, the quality and accuracy of relevant architectural and engineering data vary significantly. Furthermore, rapid price increases experienced over the past few years have served to complicate the development of cost estimates while, at the same time, increasing the need for their accuracy. In order that sufficient in-depth analysis can be devoted to this function, an additional planner/estimator (\$15,000) is requested.

Timely processing, recording, and preparation of data related to construction contracts is necessary to prevent work delays and resultant cost increases. There are approximately 60 active contracts during any given period. A clerk-typist (\$8,000) is required to process and prepare contract documents, proposals, cost records, payment receipts, and construction reports.

Support funds in the amount of \$12,000 are requested to meet the increased costs of printing and reproduction of architectural and engineering plans and specifications (\$2,000), to provide specialized contract services (\$4,000), and to purchase miscellaneous supplies and equipment such as architectural drafting tables, calculator units, etc. (\$6,000).

OFFICE OF PLANT SERVICES

1975 Actual.....\$ 9,838,000
 1976 Estimate.....\$12,002,000
 1977 Estimate.....\$14,028,000

(Dollars in thousands)	Base FY 1976	Increase Requested	Est. FY 1977
Number of Permanent Positions...	319	34	353
11 Personnel Compensation.....	4,169	714	4,883
12 Personnel Benefits.....	375	64	439
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	6,356	1,140	7,496
24 Printing and Reproduction...	4		4
25 Other Services.....	551	65	616
26 Supplies and Materials.....	415	30	445
31 Equipment.....	126	13	139
TOTAL	12,002	2,026	14,028
<u>Analysis of Increase</u>			
Necessary Pay.....		279	
Other Uncontrollable.....		884	
Program Funds.....		863	

ABSTRACT - The Office of Plant Services (OPLANTS) operates, maintains, and repairs 10 museum and art gallery buildings and a number of other work and collection storage areas. It provides utilities, transportation, mail, telephone, and horticultural services in support of research, exhibit, education, and other public programs. An FY 1977 budget increase of 34 positions and \$863,000 is sought for the following Buildings Management requirements: (1) National Air and Space Museum--25 new mechanic, gardener, and window washer positions (\$332,000) and the annualization of funding for 25 persons hired in FY 1976 (\$72,000) plus \$48,000 for services, supplies, and equipment to operate and maintain the new building; (2) General Maintenance Services--9 new pest control, custodial laborer, and gardener positions (\$95,000) for other facilities; (3) Rental Space--\$150,000 for rent and related expenses; and (4) Utilities--\$166,000 for expected higher consumption of utilities resulting from new facilities. Further amounts of \$279,000 for necessary pay and \$884,000 for utility, postage, and communication rate increases are justified in the Uncontrollable Section (page A-5).

PROGRAM - OPLANTS operates, maintains, and repairs the Smithsonian's buildings on and near the Mall and certain storage, service, and collections preservation facilities elsewhere. These include approximately four million square feet in ten museums and art galleries. Operational responsibilities for utilities funding and management include large and complex airconditioning, heating, and ventilating systems and electric or electronic environmental controls and systems for the protection of buildings, visitors, natural history specimens, paintings, sculpture, and objects of American history and technology. Trade and craft assistance, such as carpentry, painting, and electrical work, is provided to hundreds of research projects, exhibition installations, and special public events every year. Packing, crating, warehousing, and moving services are provided for museum objects and collections.

In FY 1975, communications responsibilities included the management and funding of telephone installations and services handling some 280,000 long distance (Federal Telecommunications System) and 1.8 million local calls; the processing of 850,000 pieces of outgoing mail; and the delivery of 2.6 million pieces of incoming mail.

Transportation services cover maintenance, repair, and operation of about 50 vehicles. OPLANTS also provides horticultural services to 80 acres of grounds and to building interiors and will provide support to the newly-installed conservatory in the Arts and Industries Building and to the new Victorian gardens south of the original Smithsonian Institution Building.

Other management services include providing information to bureau directors concerning status of work requests and costs, utilities consumption and costs, and supply data. OPLANTS has responsibility for overall management of the insect and rodent control program. The computerized power management system installed in the History and Technology Building in early 1975 is being expanded to take in the Natural History, Arts and Industries, Smithsonian, and Air and Space Buildings. Increased savings in utilities costs and energy consumption will be realized by late spring or summer of 1976. Furthermore, OPLANTS is establishing an efficient supply management system to support its operations.

JUSTIFICATION OF \$863,000 INCREASE (Buildings Management):

National Air and Space Museum - This new museum building will open officially to the public in July 1976. The 25 additional positions requested for FY 1977 represent the last increment of the planned 55 positions needed to operate and maintain heating, airconditioning, and humidity control systems; accomplish a comprehensive preventive maintenance program on all installed mechanical equipment; and provide necessary trade and craft support to NASM's exhibits and other programs. An amount of \$300,000 is required to cover personnel costs for 22 additional mechanic positions, \$20,000 are required to provide two additional gardeners for maintenance of plantings, \$12,000 are needed to provide one window washer for extensive window cleaning requirements in this heavily glassed building, and \$48,000 are sought for supplies, services, and equipment to support the above personnel. A further \$72,000 are required to annualize the funding for the 25 part-year jobs approved in FY 1976.

General Maintenance Services - Four positions (\$30,000) are required to provide more adequate custodial/labor support to the Anacostia Museum, the Silver Hill, Maryland, Storage Facility, and the Smithsonian Institution Service Center. Anacostia's custodial work was provided under contract in the past, but the services obtained were totally unsatisfactory. Exhibits preparation and other spaces must be cleaned during work hours for personnel safety, fire hazards due to sawdust and trash collection must be controlled, and restrooms must be serviced and kept in a sanitary condition. The Silver Hill custodial effort is presently done by National Air and Space Museum mechanics when time permits. Assignment of a full-time custodial/laborer position will result in better cleaning and safer working conditions, elimination of fire hazards, the improvement of health conditions, and free the mechanics for more highly skilled work. The Smithsonian Institution Service Center is a newly-opened facility and must be provided with sufficient custodial and labor assistance to ensure adequate cleanliness and elimination of safety hazards.

Landscape maintenance of the newly-completed four-acre Victorian garden in the Smithsonian Institution Building South Yard and the conservatory in the reopened Arts and Industries Building will require four additional gardener positions at a cost of \$51,000. The garden, installed by contract, will consist of seasonally-changing flower borders, 10,000 annuals, 10,000 chrysanthemums, and 30,000 spring bulbs, plus sheared topiaries and lily ponds. A garden of this size and intricacy should have one gardener per acre of garden. The maintenance of this garden can only be done through the use of inhouse staff under proper supervision. Maintenance of the conservatory in the reopened Arts and Industries Building, which will have many large and valuable tropicals, includes daily watering, manual humidity control, periodic fertilizing, and specialized pruning. Such work cannot be contracted.

An amount of \$14,000 is required for one insect and rodent controller position to coordinate the total program. This individual will supervise contract work and inhouse efforts to ensure overall effective and safe results. The recent rodent infestation in the general Mall area must be controlled, especially with expected increased visitor levels. This program has been very ineffective in the past due to lack of trained personnel, funds, and contract monitoring.

Space Rental and Related Expenses - An additional \$150,000 are required in FY 1977 to cover increased rental costs and to upgrade ventilation at the Service Center for its industrial work areas. The Smithsonian is required by the terms of its leases at L'Enfant Plaza and the Service Center to assume the costs for increased operating expenses. These additional costs and the estimated Federal Building Fund increase for the Oceanographic Sorting Center located at the Washington Navy Yard will total approximately \$90,000 in FY 1977. Also, it is very desirable from the standpoint of health and safety to improve ventilation systems for the various industrial activities located at the Service Center and to provide some airconditioning. An estimated \$60,000 would be required to install circulation and airconditioning equipment which the Smithsonian has salvaged from the renovation of the Arts and Industries Building and the demolished South Yard buildings.

Utilities - Additional funding to cover known and projected costs of utility rate increases (steam, gas, electricity, and telephone) is budgeted in the requested FY 1976 supplemental appropriation and in the Uncontrollable Section of the FY 1977 budget. Presented here is a request for a further \$166,000 to fund projected higher consumption resulting from the availability of new public facilities. These include the new National Air and Space Museum, the renovated and airconditioned Arts and Industries Building, the South Yard garden area, and the new education and restaurant facility built in the previously open West Courtyard of the Natural History Building. At the rates expected to be in effect in FY 1977, an amount of \$129,000 is required for an expected additional use of three million KWH of electricity and \$37,000 for five million additional pounds of heating and humidification steam. The expected additional consumption of electricity for the new facilities is six million KWH, but energy conservation measures in all facilities will save about three million KWH.

SMITHSONIAN SCIENCE INFORMATION EXCHANGE

1975 Actual.....	\$1,805,000
1976 Estimate.....	\$1,944,000/ ¹ / ₂
Transition Quarter Estimate.....	\$ 523,000/ ² / ₂
1977 Estimate.....	\$1,900,000

The Smithsonian Science Information Exchange (SSIE) was established in 1949 to provide a national collection and source of information on research in progress. Its purpose continues to be to facilitate research planning, management, and coordination through the dissemination of information designed to prevent the unnecessary duplication of research and to foster scientific communication within the Nation's research community. The Exchange works closely with policy makers in an increasing number of Federal agencies to develop ways in which the SSIE data base might be more effectively applied to the solution of problems of national and international importance. As a result, a number of large-scale support activities have been initiated in areas such as energy, cancer, and pesticides research which are earning a high degree of recognition for the Exchange and an increasing appreciation of the value of its services. Significantly, the General Accounting Office recently documented the importance of SSIE's policy analysis support capabilities (and identified a need for strengthening them) in a report to Congress which analyzed Federal funding for materials research and development based on information drawn from the SSIE data base.³

The operation of the Exchange has two principal components. The first is the collection, indexing, and entry into its computer system of information on research in progress in all fields of science. The extent of this effort is measured by the number of projects received each year from organizations which voluntarily register their research with the Exchange. The fact that input volume has risen significantly in recent years (Table I) not only reflects the importance attached by a growing number of organizations to the purposes of the Exchange, but serves, as well, as an indication of the comprehensiveness of its coverage, the effectiveness with which the data base can be applied to meeting user needs, and the extent to which the Exchange can continue to expand the use of its services.

The second major component of SSIE's operation is the delivery of information products and services through the retrieval of information from the data base. The Exchange not only provides services directly to users, but also supplies data to a growing number of specialized information centers. In addition, information is regularly used in the preparation of catalogues of research in progress in specific subject areas, such as pesticides, water resources, cancer, and dental research. Distribution of these catalogues by the organizations which sponsor their compilation brings SSIE information to users on a significantly broader scale than would be possible through response to requests submitted by individuals directly to the Exchange.

One major example of services of this kind has been the establishment and operation by SSIE of a Current Cancer Research Project Analysis Center under the International Cancer Research Data Bank program. Funded by the National Cancer Institute for an initial period of three years, SSIE, through the Center, has undertaken to expand input in the field of cancer research, improve existing indexes and indexing techniques involving this research, and provide a wide variety of information services to the cancer research community, not only nationally, but internationally as well. As an

¹ Includes supplemental appropriation request of \$69,000 for October 1975 General Schedule pay raise costs.

² Includes supplemental appropriation request of \$23,000 for October 1975 General Schedule pay raise costs.

³ Comptroller General of the United States, Federal Materials Research and Development: Modernizing Institutions and Management, OGP-76-9, December 2, 1975.

integral part of this effort, SSIE's file of information on cancer research in progress is also being made available to on-line users through the computerized MEDLINE system operated by the National Library of Medicine.

Demand for SSIE output services, all of which are charged for, has increased dramatically over the past five years (Table I). As this demand has grown, SSIE has consistently pursued policies designed to maximize user revenues and minimize requirements for Federal support. The success with which it has done so is reflected by the fact that, despite the increased costs of rapidly expanding input and output workloads, SSIE has been able to hold its requirements for Federal support to a level below the rate of inflation alone. This success can be attributed in part to major improvements in both the comprehensiveness and the timeliness of the information in the data base, which have attracted a growing number of users to the system. It is also the result of actions by the Exchange to increase user fees steadily whenever it has been possible to do so without these increases being counterproductive to the goal of maximizing revenues. SSIE expects to continue to improve its data base and to expand user revenues in a manner designed to yield increasing user contributions to the total cost of operating the Exchange.

SSIE's proposed budget for FY 1977 (Table II) contains a request for \$1,900,000 in Federal support. In order to make up the difference between this request and the amount believed to be required to process input at the projected FY 1977 level and to meet continuing increases in operating costs caused by inflation, SSIE has undertaken to study the possibility of further increasing its user fees and is examining a number of other steps which might be taken to reduce input processing costs and avoid increases in processing backlog. The Exchange believes it will be able to do so barring unanticipated increases in project registration.

A number of technical improvements have already been made, two of which stand out as having contributed significantly to the effectiveness with which SSIE has been able to control its costs and expand its services. The Exchange has successfully negotiated for larger percentages of its Federal input to be supplied in magnetic tape form, a change which has had the effect of reducing the overall cost per project registered. SSIE has also developed and implemented a system of machine-assisted indexing which has measurably reduced unit indexing costs. Both improvements also have had the effect of facilitating the entry of projects into the system and of significantly reducing the delay between receipt of the project summary and its availability for retrieval.

Further improvements in the system are still required, however, as the GAO report makes clear. Greater attention needs to be paid to obtaining complete project funding information from Federal agencies, for example, and coverage of research in the private sector by SSIE is still limited by a lack of the resources necessary to encourage registration. More computer storage capacity also would be required if SSIE were to maintain the recommended two complete fiscal years of information on active file, in addition to data being registered in the current year. These improvements must, of necessity, continue to be deferred. Moreover, the current budget request does not include funds which would be necessary to improve the comprehensiveness of the SSIE data base through a mechanism such as mandatory input, as was recommended by GAO in the area of materials research.

Within the limits imposed by available resources, SSIE has nevertheless operated effectively and efficiently, and, as a result, has come to play an increasingly important role in the nation's research community. It has significantly expanded the level and quality of its user services and has generated, thereby, resources which have contributed more and more to the overall cost of its operation. This FY 1977 budget request has been prepared to reflect requirements believed to be necessary if SSIE is to continue to meet effectively the Nation's need for ongoing research information and if the level of Federal support required for it to do so in future years is to be held to a minimum.

Table I
SSIE Processing Workload and Sources of Revenue

	Actual FY 1972	Actual FY 1973	Actual FY 1974	Actual FY 1975	Projected FY 1976	Projected FY 1977
<u>Processing Workload</u>						
Input Volume ^{1/}	92,403	85,530	102,368	125,531	130,000	136,000
Output						
Report Volume ^{2/}	502,856	348,600	605,300	671,000	805,200	885,700
Contracts						
- No. active during FY	16	15	13	18	20	21
- Average \$ cost (\$000)	\$ 8.6	\$ 14.7	\$ 8.5	\$ 27.5	\$ 39.4	\$ 42.4
<u>Sources of Revenue & Total Costs</u>						
Federal Support ^{3/} (\$000)	\$1,600.0	\$1,600.0	\$1,695.0	\$1,805.0	\$1,944.0	\$1,900.0
User Revenues (\$000)						
Search Products	230.9	213.9	305.9	339.0	375.0	400.0
Contract Services	148.3	216.3	110.4	495.0	788.4	890.0
Total User Revenues	379.2	430.2	416.3	834.0	1,163.4	1,290.0
Total Costs of Operation	\$1,979.2	\$2,030.2	\$2,111.3	\$2,639.0	\$3,107.4	\$3,190.0
<u>Distribution of Total Costs</u>						
Federal Support	81%	79%	80%	68%	63%	60%
User Revenues	19%	21%	20%	32%	37%	40%

^{1/} Notices of Research Projects indexed.

^{2/} Notices of Research Projects disseminated in the form of SSIE search products.

^{3/} Federal support per Notice of Research Project indexed has been reduced by 1% during period shown.

^{4/} Includes contract support to the National Cancer Institute under the International Cancer Research Data Bank program.

TABLE II
SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.
PROPOSED BUDGET FY 1977

	<u>Total Cost of Operations</u>	<u>Federal Support Requested</u>	<u>User Support</u>
Personnel			
Salaries	\$1,952,600	\$1,269,900	\$ 682,700
Benefits	300,700	195,600	105,100
Contract Services			
Travel	33,900	13,000	20,900
Transportation of Things	3,600	2,100	1,500
Rents			
Telephone	12,000	7,200	4,800
Computer	274,900	148,500	126,400
Photocopying	17,600	10,500	7,100
Building	120,800	72,000	48,800
Other	45,100	5,100	40,000
Printing	77,900	7,900	70,000
Other Services			
Equipment Maintenance	12,400	7,400	5,000
Other	96,600	16,600	80,000
Supplies	<u>91,900</u>	<u>54,800</u>	<u>37,100</u>
TOTAL	\$3,040,000	\$1,810,600	\$1,229,400
SI Services	<u>150,000</u>	<u>89,400</u>	<u>60,600</u>
GRAND TOTAL	\$3,190,000	\$1,900,000	\$1,290,000

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1975 Appropriation.....	\$2,000,000	} Equivalent in Excess Foreign Currencies
1976 Appropriation.....	\$ 500,000	
Transition Quarter Appropriation....	0	
1977 Estimate.....	\$4,481,000	

An appropriation of \$4,481,000 in foreign currencies determined by the Treasury Department to be in excess of the normal needs of the United States is requested for FY 1977. The appropriation will be used to continue a program of grants to United States institutions for field research in the program's areas listed below in those countries where excess local currencies are available. In addition, it will allow payment of \$1,000,000 equivalent in excess Egyptian pounds (the third of four equal annual contributions) to the Campaign to Save the Monuments at Nubia.

Obligations of Funds by Program Area
(dollar equivalents)

	FY 1975 Obligations	Estimated Obligations ^{/1}		
		FY 1976	Trans. Qtr.	FY 1977
Archeology and Related Disciplines	\$1,946,843 ^{/2}	\$845,140	\$ --	\$3,434,420 ^{/2}
Systematic and Environmental Biology	708,654	211,303	30,000	690,214
Astrophysics and Earth Sciences	212,905	19,651	--	430,431
Museum Programs	261,656	16,317	--	--
Grant Administration	100,339	30,589	--	10,000
Transfer to NSF--Science Information Program	--	83,000	--	--
Total	\$3,230,397 ^{/2}	\$1,206,000	\$30,000	\$4,565,065 ^{/2}

^{/1} Obligations based on most current information.

^{/2} FY 1975 and FY 1977 amounts include respectively the second and third of four annual payments, each of \$1,000,000 equivalent in excess Egyptian pounds, which together would constitute the United States' contribution to the Project to Save the Temples of Philae which were inundated by Nile River waters regulated by the Aswan Dam. President Kennedy in his letter to the Congress dated April 6, 1961, proposed that the United States contribute to the salvage of these temples as a part of the United States' contribution to the large Campaign to Save the Monuments of Nubia.

PROGRAM OF GRANTS FOR FIELD RESEARCH

The purpose of the Smithsonian Foreign Currency Program is, like that of the Institution itself, "the increase and diffusion of knowledge among men." The Smithsonian Foreign Currency Program supports this purpose by making grants to United States universities, museums, and other institutions of higher learning primarily for basic research and

advanced professional training in fields of traditional Smithsonian competence. An appropriation of \$3,481,000 equivalent in excess foreign currencies is sought for these grants.

The Smithsonian program is the principal source of excess foreign currency support for basic research carried out by United States institutions in the excess currency countries. The Smithsonian program contrasts with other Special Foreign Currency Programs in that the full responsibility for the design, execution, and publication of research results rests with a scholar at a U.S. institution.

The basic research programs of U.S. institutions should have full access to excess foreign currencies. This is so because the importance of this source of funds grows as the pressure of inflation and of the consequent institutional and governmental economies diminishes funds available from other sources for research.

The Smithsonian program strengthens the research and training activities of collaborating institutions abroad as well because most projects directly involve host country institutions and scholars. Enduring professional ties result from such joint efforts and scholarly exchange which contribute to the strongest form of U.S. cultural relations with other nations. These contribute both directly and indirectly to the integration of the worldwide scientific process which is vital to narrowing the politically dangerous gap between the industrial and the developing nations. The critical importance of efforts to close this gap is well summed up in the following words of M. Mesarovic and E. Pestel in the preface to Mankind at the Turning Point: The Second Report to the Club of Rome:

Two gaps, steadily widening, appear to be at the heart of mankind's present crisis: the gap between man and nature, and the gap between 'North' and 'South', rich and poor. Both gaps must be narrowed if world-shattering catastrophes are to be avoided;...

THE IMPORTANCE OF PROGRAM CONTINUITY

The very nature of field research expeditions in the excess foreign currency countries requires continuity of funding. Sensible planning by the United States grantee institution and by the host country collaborator involves the advance commitment of personnel, professors, and graduate students, as well as of facilities. The larger objectives of the participating institutions depend on the coordination of such resources. In a similar way, the programs of major research consortia, like the American Institute of Indian Studies (AIIS), the American Schools of Oriental Research (ASOR), and the American Research Center in Egypt (ARCE) require continuity of funding. Their programs embrace field expeditions as well as major national fellowship programs. Their membership looks to them to provide the uninterrupted research opportunities which are fundamental to the conduct of their graduate programs as well as to the maintenance of an American community of scholars knowledgeable about these critical areas of the world.

The Smithsonian Foreign Currency Program appropriation has been sufficient in the past to provide funding only on an annual basis for most of its grantees. Multi-year funding, the standard practice of other Special Foreign Currency Program agencies, has been undertaken primarily when it was essential to protect investments in successful projects against the contingency that some excess currency accounts would be exhausted. This happened in Ceylon, Israel, Morocco, and Yugoslavia.

The FY 1977 appropriation request seeks funds to ensure completion of projects, including multi-year projects, in Poland and Tunisia where the excess currency accounts will soon be exhausted. In addition, multi-year funds are requested to assist the consortia to meet their ongoing responsibilities for successful research projects and for fellowships.

THE IMPORTANCE OF BASIC RESEARCH

Basic research is important because it has been the basis of most technological advance over the past 175 years. The worth of such research is hard to measure project-by-project; it is easy to measure over an extended period of time. Applied research must rely on basic research to succeed, and development of a useful industrial process or instrument rests just as certainly on sound basic research. In the words of Isaac Asimov in the introduction to The Greatest Adventure:

In fact, unless we continue with science and gather knowledge, whether or not it seems useful on the spot, we will be buried under our problems and find no way out. Today's science is tomorrow's solution--and tomorrow's problems, too--and, most of all, it is mankind's greatest adventure, now and forever.

PROGRAM ACCOMPLISHMENTS

Smithsonian grants have been made to 185 United States institutions in 29 states and the District of Columbia over the ten year period from FY 1966 to FY 1975. In FY 1975 alone, 303 American scholars from 63 United States institutions in 29 states and the District of Columbia received program support.

Publications known to have resulted from program grants totaled 915 at the end of calendar year 1975, up from 507 at the end of FY 1974, as the final results of research completed some time ago began to appear as formal publications more rapidly.

More than 100 research collections have been returned to United States universities and museums over the ten year life of the Smithsonian program. A similar number of collections have been added to the research resources of the excess currency countries. These collections are the original biological specimens and the archeological and ethnographic materials acquired in the course of field research. They will remain available for further study and interpretation by other generations of scholars long after the research teams supported by the Smithsonian have dispersed and their conclusions have been published.

The benefits of the program have been felt by a far larger number of institutions than the 185 mentioned above which were direct grant recipients. For example, three of the grantee institutions are consortia of United States scholarly institutions. They are the AIIS in Chicago, Illinois, with 28 institutional members; the ARCE in Princeton, New Jersey, with 30 institutional and 500 individual members; and the ASOR in Cambridge, Massachusetts, with 153 member institutions, including three scholarly associations.

These consortia must be considered major United States national resources. They are the principal funding sources for research and training of American specialists in ancient and modern India and Egypt, and in the archeology of the Near East, including Biblical archeology.

The consortia are of national importance also because they contribute to the maintenance of United States cultural relations with India and Egypt, and through ASOR with Cyprus, Iraq, Israel, Jordan, and Tunisia by maintaining a year-round scholarly presence and active scholarly collaboration with these nations even during times of political stress between the United States and the host countries.

Smithsonian grants have supported the research in India of 115 AIIS fellows over the eight year period from FY 1968 through FY 1975. The fellows were drawn from 43 United States institutions in 22 states. Program grants have also supported 37 ARCE projects over the ten year period from FY 1966 through FY 1975. Nine ASOR excavations in Israel and Tunisia over nine years have provided research opportunities for more than 260 senior U.S. scholars and field training for more than 324 graduate students. Moreover, ASOR's

administrative director states that "The current highly developed state of interdisciplinary communications throughout Near Eastern archeology has been a direct result of the policies and recommendations of the Smithsonian Foreign Currency Program."

SOME "USEFUL" RESULTS OF SMITHSONIAN GRANTS

Some basic research projects provide examples of "usefulness" even if the "usefulness" is accidental. Some examples follow:

--The Utah State University study in Tunisia of the advance of the Sahara Desert at the expense of agricultural or grazing land is an example of a research design which is "useful." This study proposes to integrate data on the biology of the plants, animals, and human populations in such a way as to assist the human populations to alter their use of the land and stop the advance of the desert. Progress is satisfactory to date.

--The Southern Methodist University studies of the early history of man in Egypt's now uninhabited western desert is an example of a project demonstrably "useful" even if only by accident. The basic research plan is being competently carried out. But one accidental result has been the location of a large area, previously undescribed, with a vast subterranean water pool and with excellent potential for agricultural development.

--The University of Michigan at Ann Arbor is studying the snails of Africa in association with Ain Shams University in Cairo, Egypt, and with the Lowell University in Lowell, Massachusetts. The University of Michigan group seeks to describe the snails of the genus *Bulinus* well enough for Lowell University scientists to determine which snails of the genus spread one of man's most serious parasitic diseases, urinary schistosomiasis, and to find a way to control these vector snails.

--The Smithsonian study of tropical lakes in South India revealed an inadequate command of research techniques among participating Indian graduate students. One American scholar consequently took it upon himself to develop a series of lectures addressed to these students to equip them to participate effectively in this and other limnological research.

--A Duke University Marine Laboratory-sponsored symposium in Yugoslavia in 1973 on the development of marine larvae, a sensitive pollution indicator, resulted in new research collaboration which so far has brought six Yugoslav scientists to Duke and sent four Americans to Yugoslavia.

SPECIAL FOREIGN CURRENCY PROGRAM APPROPRIATIONS AND THE U.S. TAXPAYER

An appropriation for this program does not add to the tax burden of Americans because the money used for foreign currency grants comes from U.S. holdings of foreign currencies abroad in existing accounts that were established in connection with the "Food for Peace" (PL 480) program. These accounts were generated largely through sales of surplus U.S. agricultural commodities abroad in exchange for local currencies. In cases where there are greatly in excess of the projected normal U.S. needs, the Treasury Department designates them "excess foreign currencies." They then become available through the Special Foreign Currency Program appropriation process for U.S. uses like scientific research.

Erosion of these accounts by inflation is in many cases dramatically reducing their value to the United States. Indian and Pakistani rupees have, for example, lost almost half their value since 1970. As a consequence, when a worthy use of these excess currencies can be identified through programs like the Smithsonian Foreign Currency Program, the U.S. can effectively employ at least some of these currencies before inflation effectively eliminates their usefulness. To fail to do so is to waste public funds by default.

SCIENTIFIC REVIEW UNDER THE SMITHSONIAN PROGRAM

The Smithsonian's Special Foreign Currency Program provides a mechanism for American private sector institutions, such as universities, to make use of excess foreign currencies for the support of their own research programs.

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 science to be studied, and convenes annual advisory councils of senior scholars in the relevant program areas. The councils discuss and evaluate the proposals, taking into consideration the experts' opinions, and provide specific advice to the Smithsonian regarding the selection of projects for support, and the priority among proposals recommended for support.

When foreign currency awards are made to support approved proposals, normal Federal contracts are executed 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.

Projects lasting more than one year are subject to annual review of scientific progress by the advisory councils before another year of funding is approved. In addition, Smithsonian staff scientists and program advisory council members visit projects in the field when firsthand scientific reports are considered necessary. Smithsonian policy requires that grantees publish scientific results and that scientific collections be readily accessible to the scholarly community.

THIRD U.S. CONTRIBUTION TO THE SALVAGE OF THE TEMPLES OF PHILAE

The Smithsonian is seeking funding for the third of four annual contributions, each of \$1,000,000 equivalent in Egyptian pounds, initially requested in FY 1974 to help preserve the temples on the Island of Philae which have been inundated by Nile River waters regulated by the Aswan Dam. The \$4,000,000 total contribution to the Philae project would represent the final United States' contribution to the International Campaign to save the Nubian monuments which was initiated in 1960 by UNESCO.

The Smithsonian proposes to make this third payment available to the Government of Egypt. Previous United States payments were funneled through the UNESCO trust fund for the International Campaign.

The program to safeguard the Egyptian monuments has always been under the direction of the Government of Egypt. Only the International Campaign to raise funds for this purpose has been a matter for UNESCO. Funds deposited in UNESCO's trust fund are transmitted to the Government of Egypt in response to that government's requests based on work schedules, cash flow requirements, and financial reports which are the responsibility of the Egyptian Antiquities Organization. A Smithsonian contribution made to the Government of Egypt would, therefore, comply with the terms of P.L. 93-559 prohibiting payments to UNESCO.

The International Campaign to save the monuments of Nubia was initiated by UNESCO at the request of the Governments of Egypt and the Sudan. In 1960, the Congress in Public Law 86-472 asked the President to recommend a United States contribution. President Kennedy responded on April 6, 1961, that he considered it "to be in the interest of the United States to assist in rescuing these historic remains of a former civilization from destruction..."

The total cost of the program to salvage the monuments on the Island of Philae will probably exceed \$16,000,000 in convertible and local currencies. As of December 31, 1974, some \$9,522,060 have been received or pledged, of which \$5,514,304 have actually been

received. Since that date, an additional amount of \$2,114,540 has been received. Egypt has undertaken to meet one-third of the project's total cost.

The salvage plan, adopted with the advice and concurrence of an American engineer, provides for a coffer dam to be erected around the Island of Philae to permit the lowering of the water for the removal of the temples. They are to be re-erected on the nearby Island of Agilkia, in a setting like the original one, where they will be higher and safe from further erosion by the river and accessible to all.

The Government of Egypt has sought the advice of the United States in the course of the Nubian Campaign, inviting experts to sit on the scholarly panels concerned with the salvage of Abu Simbel and Philae, for example.

The United States representative on the Archeologists and Landscape Architects Committee for Safeguarding the Philae Temples reports that work was continuing to progress satisfactorily when he last visited the site in November, 1975. The archeological studies on the Island of Philae, begun a year ago when the island first was freed of water, were about half completed. Removal of the temples had begun. The identification, transportation, storage, and protection of the stones was proceeding in what he considers an exemplary manner.

Time lost in earlier phases of clearing the new site for the temples on the adjacent island of Agilkia is being regained. Project directors are managing both the archeological and engineering aspects of the work well so that the project is not significantly behind schedule.

Obligation of Total Program Funds by Country
(dollar equivalents)

	<u>FY 1975</u> <u>Actual</u>	<u>FY 1976</u> <u>Estimate</u>	<u>T.Q.*</u> <u>Estimate</u>	<u>FY 1977</u> <u>Estimate</u>
Burma	\$ 36	368	\$ --	\$ --
Egypt	1,369,305 ^{/1}	358,108	--	2,376,220 ^{/1}
India	445,950	498,273 ^{/2}	--	948,400
Pakistan	200,674	11,796	--	462,500
Poland	424,500	61,855	10,000	393,145
Tunisia	<u>789,932</u>	<u>275,600</u>	<u>20,000</u>	<u>384,800</u>
Total	<u>\$3,230,397</u> ^{/1}	<u>\$1,206,000</u> ^{/2}	\$30,000	<u>\$4,565,065</u> ^{/1}

* Transition Quarter

^{/1} Includes payments of \$1,000,000 equivalent excess Egyptian pounds for the salvage of the Temples of Philae.

^{/2} Includes \$83,000 equivalent transferred to the NSF Science Information Program.

STATUS OF SMITHSONIAN SFCP FUNDS
(dollar equivalents)

	<u>FY 1975</u> <u>Actual</u>	<u>FY 1976</u> <u>Estimate</u>	<u>T.Q.</u> <u>Estimate</u>	<u>FY 1977</u> <u>Estimate</u>
Unobligated Balance, Start of year	\$1,326,000	\$ 334,000	\$34,000	\$ 24,000
Appropriation	2,000,000	500,000	--	4,481,000
Recovery of Prior Years' Obligations	238,000	406,000	20,000	60,000
Unobligated Balances End of year	<u>-334,000</u>	<u>-34,000</u>	<u>-24,000</u>	<u>--</u>
Total Obligations	\$3,230,000	\$1,206,000	\$30,000	\$4,565,000

FACILITIES PLANNING, RENOVATION, RESTORATION, AND CONSTRUCTION

Summary

Programs	Fiscal Periods			
	FY 1975 Appropriation	FY 1976 Appropriation	Transition Quarter	FY 1976 Estimate
Construction and Improvements, National Zoological Park	\$9,420,000	\$8,390,000	\$1,440,000	\$6,800,000
Restoration and Renovation Of Buildings	1,490,000	1,192,000	400,000	3,300,000
Construction: National Air and Space Museum	7,000,000	2,500,000	-	-
Museum Support Facility Planning	-	-	-	500,000
Totals	\$17,910,000	\$12,082,000	\$1,840,000	\$10,600,000

The FY 1977 appropriation requested for Construction and Improvements, National Zoological Park will sustain progress on the implementation of the approved Master Plan for the improvement of the Zoo's animal and public facilities and essential repairs and additions to existing facilities. Work to be undertaken in the budget year includes the completion of Beaver Valley exhibits (beavers, otters, seals and sea lions, some bears, and wolves); the design and installation of graphics; and a continued phased program of repairs, renovations, and other improvements of Zoo facilities in Rock Creek Valley and at the Front Royal, Virginia, conservation center.

The FY 1977 appropriation sought for Restoration and Renovation of Buildings emphasizes renovation of the Arts and Industries Building; road and water system improvements at the Mt. Hopkins, Arizona, Observatory; fire detection and control systems; repairs to the Renwick Gallery exterior and the History and Technology Building terrace; installation of building equipment monitoring systems; improvements for handicapped persons; and general repairs and improvements for building preservation and safety purposes.

No additional funds are requested for FY 1977 for the liquidation of contract authority for the Construction of the National Air and Space Museum. The project is on schedule and within budget.

Funds requested in FY 1977 will enable architectural and engineering planning to begin for the Construction of a Museum Support Facility.

Justifications for these programs and projects appear in the following sections.

CONSTRUCTION AND IMPROVEMENTS,
NATIONAL ZOOLOGICAL PARK

1975 Appropriation.....	\$9,420,000
1976 Appropriation.....	\$8,390,000
Transition Quarter Appropriation.....	\$1,440,000
1977 Estimate.....	\$6,800,000

This appropriation is used to fund repairs, alterations, and improvements to existing facilities including exhibits; to prepare plans and specifications for construction; and to perform renovation, restorations, and new construction implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973.

The requested FY 1977 appropriation will be applied as follows:

Beaver Valley Development	\$5,840,000
Graphics	100,000
Renovations, Repairs, and Improvements:	
Rock Creek	440,000
Front Royal	420,000
Total	\$6,800,000

Details on these projects are provided in the following pages.

The National Zoological Park was established in 1890 under the Board of Regents of the Smithsonian Institution, who are authorized to "administer and improve" the Zoo for "the advancement of science and the instruction and recreation of the people" (20 U.S.C. 81). The Zoo has two locations. Exhibit and education functions have been centered since 1890 on some 150 acres in Washington, D.C.'s Rock Creek Valley. At present there are on display about 2,800 animals, reptiles, and birds of 600 different species. Complementary animal conservation and breeding functions (to be done in collaboration with other zoos) are being developed on about 3,000 acres of Smithsonian land near Front Royal, Virginia.

The Master Plan had been defined in previous budgets in terms of 41 major projects clustered into 14 groups for planning, budgeting, and management purposes. The FY 1976 budget justification stated that with cost estimates escalated to July 1976, the Master Plan improvement program would cost some \$113,000,000 through FY 1984. Another \$15,000,000 would be required for renovations and repairs during this period, for a total of \$128,000,000. The justification further stated that the possibility of acquiring and developing an animal conservation and research center at Front Royal, Virginia, would provide an opportunity for substantial reductions in Master Plan projects. The reason for this statement was that during preparation of the Master Plan deliberate efforts were made to provide greater open space for hoof stock and to incorporate breeding capabilities in all exhibits, needs which can now best be met at the recently acquired Front Royal site. Consequently, a comprehensive reevaluation of the Master Plan has been completed, resulting in the elimination of the following projects at a savings of over \$36,000,000: crocodile, and Komodo Dragon facility, new monkey house, North American animals, Klinge Street bridge, and plains animals. The revised construction program as shown on page D-5 (including repairs and renovations and limited development of Front Royal) is now estimated at about \$92,000,000 (at estimated July 1977 prices) through FY 1984. A map of the Rock Creek facility showing the revised Master Plan development is on page D-6.

Significant progress has been made in implementing the Master Plan. The Monkey House has been remodelled with larger cages and was reopened to the public in May 1975. The new lion and tiger facility, Elephant House Yards, and Bird House Plaza are under construction and will be completed and opened this fiscal year. The Education and General Service Buildings and the new Bear Exhibits will be started this year and completed, respectively, in mid-FY 1977, mid-FY 1978, and mid-FY 1977.

Beaver Valley Area (\$5,840,000). Plans and specifications are being completed with funds previously appropriated (\$80,000 in FY 1975 and \$490,000 in FY 1976) for exhibits in the Beaver Valley area of the Zoological Park. This development includes a beaver exhibit to be constructed with land and water areas; an exhibit of the North American otter with underwater viewing; a major exhibit for seals and sea lions including a spectator seating area and an underwater exhibit room; some renovation of old bear facilities; and an exhibit of timber wolves. All aquatic exhibits will have water filtration and circulation facilities to economize on the use of water as well as to protect the health of valuable animals. Seal and sea lion pools will be major exhibits at the Zoo and will provide facilities for research, breeding, and study as well as visitor enjoyment. The requested FY 1977 appropriation of \$5,840,000 will allow completion of construction by early 1978.

Design and Installation of Graphics (\$100,000). With completion and approval by the Commission of Fine Arts of a graphics Master Plan for the Zoo, the FY 1976 appropriation of \$100,000 can be applied toward signage, street furniture, and exhibit graphics in a meaningful and organized manner. It is now possible to go back and catch up in other areas of the Zoo to implement fully the new plan. An appropriation of \$100,000 is requested in FY 1977 for this purpose to be followed by an additional such request in FY 1978.

Rock Creek Renovation and Repairs (\$440,000). An amount of \$440,000 is required to continue the program of renovation, repairs, and preventive maintenance of existing facilities. This funding is required to keep the heavily used Zoo in safe condition for the visiting public, for the upkeep and improvement of animal enclosures and staff facilities, and to maintain new buildings in good condition so that in the future the Zoo will not be faced with a large backlog of repairs. Renovation work currently in progress at the Zoo, funded from FY 1975 funds, includes minimum renovation to the commissary to overcome years of neglect and decay; construction of wheelchair ramps at two building entrances; construction, repair, and expansion of primary electrical feeders; and paving improvements for streets and sidewalks. With FY 1976 renovation funds, the restaurant mechanical systems will be improved and structural repairs will be made; Bird House mechanical systems, lighting, and painting will be done; mechanical systems serving the Panda food kiosk will be improved; and improvements will be made to the 75 year-old arch bridge across Rock Creek. Among the FY 1977 projects to be undertaken are heating plant and mechanical system renovations, replacement of cages, resurfacing of walks, and replacement of road guardrails.

Front Royal Conservation and Research Center Renovation and Improvements (\$420,000). An appropriation of \$420,000 is sought to make repairs, modifications, and improvements to the Front Royal animal conservation center. The site is used by the Zoo for breeding endangered wildlife species and for associated conservation and research efforts. Breeding groups will be assembled in cooperation with other zoos. Other important uses include holding animals displaced temporarily by Master Plan construction at the Zoo (as well as animals obtained in anticipation of construction completions) and farming land to produce an ample supply of selenium-rich hay needed for animal health previously purchased from the Midwest.

During the past year, fencing has been installed and existing barns renovated to provide five animal enclosures of 30 to 50 acres each. Animals contained therein are Pere David's deer, Scimitar-Horned oryx, Bactrian camel, Red kangaroo, Bongo, Grants zebra, and Elds deer. Also, research pens and runs have been completed for Maned wolves, foxes, and Bush dogs. Minimum maintenance has been performed on buildings and utilities. With funds appropriated in FY 1976, work will be started on modifications to an existing building to provide inside and outside enclosures for Tree kangaroos, Binturongs, Golden marmosets, and Rothschild's mynah birds. Additional fencing will be purchased and installed for hoof stock paddocks; existing buildings will be renovated to house a commissary, birds, and small cats; minimum improvements will be made to existing general purpose buildings to repair roofs, flooring, utilities, and painting; and topographical maps will be prepared. In FY 1977 a new residence will be constructed within prescribed limitations; improvements to the electrical, water, and sewer systems will be made; and new bird facilities will be constructed.

Construction and improvement work is accomplished primarily by contract. There are occasional projects, however, not lending themselves to contract. For example, suitable contractors cannot be located or their estimates are exorbitant in relationship to the proposed job. In such cases, accomplishment of the work by other means, such as the purchase with this appropriation of supplies, materials and equipment, and the use of inhouse or temporary labor, is the most cost effective solution. Furthermore, it is occasionally necessary to fund from this account other expenses directly associated with the displacement of animals and materials as a result of the construction program.

January 1976

NATIONAL ZOOLOGICAL PARK

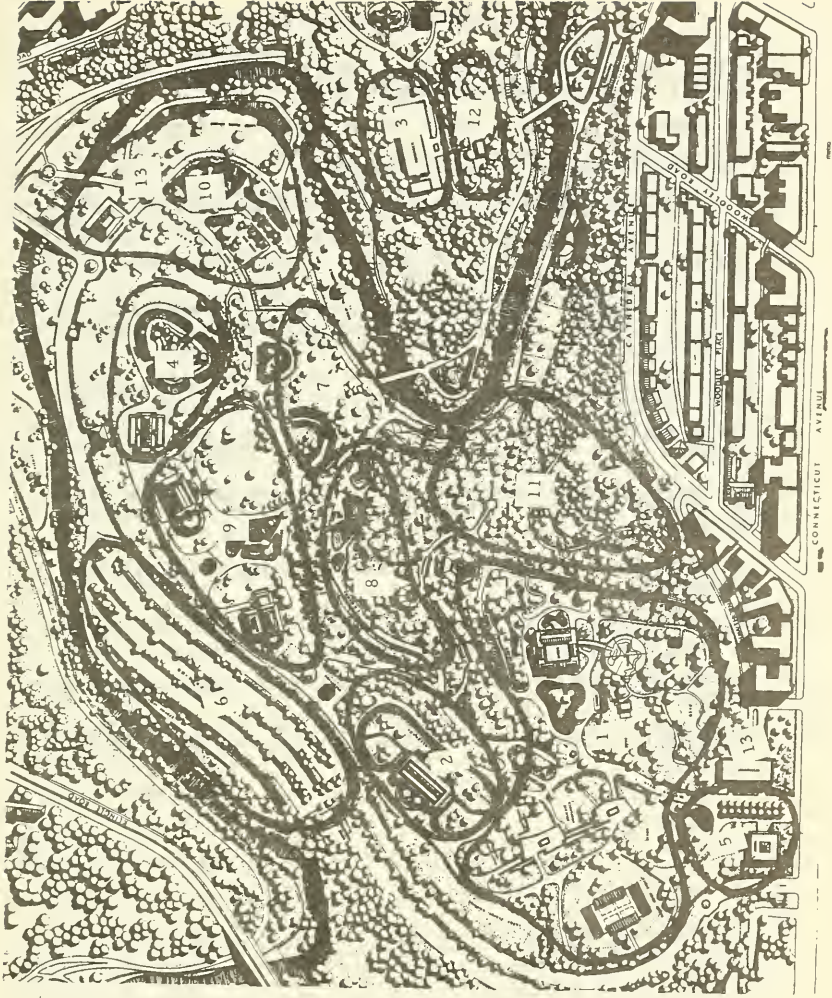
Construction Program
1974-1984

(\$1,000s)

Activity	Estimate ^{/1}	Budget Year		Estimated Completion
		Plans & Specs/Construction		
I. Master Plan:				
Lion-Tiger Facility	\$3,000 ^{/2}	1973	1974	3/76
Elephant Yards and Bird House Plaza	3,130	1974	1975	3/76
Education-Admin- istration Building	2,500	1975	1975	1/77
General Service and Parking Facility	19,350	1974,75	1976,78	1/78, 1/81
Lower Rock Creek Valley	3,000	1974,75	1976	1/77
Beaver Valley	6,410	1975,76	1977	1/78
Central Area	9,000	1975, T.Q.	1978	11/79
Waterfowl Pond Area	3,620	1975,78	1979	1/80
Aquatic Habitats	13,000	1978,79	1980	7/82
Research Facilities, Holt and Elephant Houses Ren- ovation	6,600	1980	1981	1/82
Restaurants	6,500	1981	1982	1/83
Graphics	300		1976,77,78	1/78
Total	\$76,410			
II. Rock Creek Renov- ations	\$5,280			
III. Front Royal Renovations	\$10,025			
Grand Total	\$91,715			

^{/1} Estimates from FY 1977 forward escalated to July 1977.^{/2} Excludes \$275,000 for planning appropriated in FY 1973.^{/3} Includes \$2,000,000 for a visitor and education center in FY 1980 and 1981. Estimates do not include a visitor transportation system.

NATIONAL ZOOLOGICAL PARK



LEGEND

1. Panda, hoof stock, and bird area largely completed. Bird House Plaza to be completed in FY 1976.
2. Elephant House exterior yards to be completed in FY 1976.
3. Hospital-Research Building completed.
4. Monkey House completed. Lion-Tiger Facility to be completed in FY 1976.
5. Education-Administration Building to be under construction in FY 1976 and completed in FY 1977.
6. Service Facility to be under construction in FY 1976 and completed in FY 1978. Parking structure under construction in FY 1978 and completed in FY 1981.
7. Lower Rock Creek Valley area (bears, sheep, and other animals) to be under construction in FY 1976.
8. Beaver Valley area (beavers, seals, sea lions, and others) planning in FY 1976 and construction in FY 1977.
9. Central area (small mammals, reptiles, great apes, crocodiles, and others) planning in Transition Quarter and construction in FY 1978.
10. Waterfowl Pond area (and small cats) planning in FY 1978 and construction in FY 1979.
11. Aquatic Habitats area (penguins, manatee, and others) planning in FY 1978 and 1979 and construction in FY 1980.
12. Research/Nursery area planning in FY 1980 and construction in FY 1981.
13. Restaurant planning in FY 1981 and construction in FY 1982.

RESTORATION AND RENOVATION OF BUILDINGS

1975 Appropriation.....	\$1,490,000
1976 Appropriation.....	\$1,192,000
Transition Quarter Appropriation.....	\$ 400,000
1977 Estimate.....	\$3,300,000

This account is used to fund major repairs, alterations, and improvements of a long-term nature and benefit. From time to time, it is used also for construction of major additions to existing facilities or for minor new temporary or permanent buildings or other facilities. Facilities planning and studies and other related expenses may be funded from this account. Projects undertaken are in support of research, care, and protection of collections; public accommodation and safety; and maintenance and development of a valuable physical plant and natural areas. Work is accomplished primarily by contract. There are occasional projects not lending themselves to contract. For example, suitable contractors cannot be located or their estimates are exorbitant in relationship to the proposed job. In such cases, accomplishment of the work by other means, such as the purchase with this appropriation of supplies, materials, and equipment and the use of inhouse or temporary labor, is the most cost-effective solution.

With funds now available, the Institution is carrying out several significant projects, most notably the airconditioning and phased interior and exterior renovation and restoration of the Arts and Industries Building for special Bicentennial exhibition purposes. Continuation funding for certain of these projects and funding for other repair and major maintenance work are sought in the FY 1977 appropriation.

An amount of \$3,300,000 is required in FY 1977 for the following projects:

1. General building and facility repairs and improvements	\$1,075,000
2. Mt. Hopkins, Arizona, Observatory road and water system improvements	250,000
3. Fire detection and control systems	250,000
4. Arts and Industries Building renovation (roof replacement)	950,000
5. History and Technology Building terrace repairs	150,000
6. Renwick Gallery Building exterior repairs	250,000
7. Building improvements for the handicapped	175,000
8. Building equipment monitoring systems installation	<u>200,000</u>
	\$3,300,000

Details on these projects appear in the following justifications.

1. General Repairs and Improvements (\$1,075,000)

The Smithsonian (exclusive of the National Zoological Park separately presented) has 10 major museum buildings (ranging in age from new to well over 100 years old) containing some 2.5 million net square feet and having a replacement value of several hundred million dollars. It also includes in its space inventory (not including rental properties) many lesser structures containing about 0.5 million square feet used for research, collections management, and administrative purposes. Several thousand acres of land are dedicated to research, conservation, and education. Heavy public use of these facilities, general deterioration because of age and weathering, visitor and staff safety requirements, and the need to make improvements to keep pace with program changes create a demand for regular, annual attention beyond the capability of inhouse maintenance staffs.

Specific, generally major, projects are budgeted in this appropriation under individual building or other headings. There is an urgent need, however, for substantial annual funding for planning, engineering, repair, and improvement response to other projects including those that arise unexpectedly. An appropriation of \$1,075,000 (about \$0.30 a square foot not including grounds areas) is requested for FY 1977.

These funds will be used for such needs as: repairs to roofs and exteriors of buildings (pointing, caulking, waterproofing, and painting) to provide weather-tight interiors and to conserve heating and airconditioning; modifications and repairs to mechanical and electrical systems, including the replacement of worn components, for safety and efficient performance; repairs to doors, sidewalks, driveways, ramps, docks, sewer lines, and storm drainage systems; additions, repairs, and improvements to plumbing, including public restrooms; installation of emergency power generators; alterations and improvements to structures for program needs; repairs and improvements to elevators, escalators, and the like.

2. Mt. Hopkins Observatory (\$250,000).

For several years, the Smithsonian Astrophysical Observatory has been following a phased plan of physical site improvements to its Mt. Hopkins, Arizona, Observatory. This includes work to provide adequate and safe facilities for staff and visitors. An access road improvement program has been under implementation. By the end of FY 1976, the road to Observatory sites will have been partially improved to correct major unsafe conditions (many sections of the old road slope outward to precipitous drops). Work will have been started on regrading the road between the Santa Cruz Valley and Montosa Canyon.

There is also a need to develop an adequate supply of water for drinking, sanitary, and fire protection needs. Water must now be brought in by trucks. The necessary work involves the selection of supply points, a catchment and cistern system, filtration, chlorination, and pumping and piping.

An amount of \$250,000 is requested for road and water system improvements.

3. Fire Detection and Control Systems (\$250,000).

During the past year fire engineering surveys have been conducted in all major facilities identifying specific needs for fire detection and control systems. Such systems are presently lacking in many public areas and should be installed for the protection of visitors and exhibits. Similar safeguards are needed in areas where museum collections are housed and where research by staff and visiting students and scholars takes place. Other fire protection needs include the addition of booster pumps to give adequate water pressure and the installation of fire doors. Funding of \$250,000 is sought to continue a phased program.

4. Arts and Industries Building (\$950,000).

Over \$4,000,000 have been appropriated for the major portion of the renovation and restoration of the historic 1879 Arts and Industries Building. Major improvements include installing heating, ventilating, and airconditioning systems; replacing obsolete, inadequate, and potentially hazardous electrical and utilities systems; installing additional restrooms; recreating the original appearance of the rotunda and four major exhibition halls; providing new entrances to the building for public safety and accessibility; and other renovations. This work was started in February 1974, and is expected to be completed in February 1976. Prior to this completion, exhibits installation has begun for a major presentation, "Centennial--1876," funded as part of the Institution's Bicentennial Program.

About \$1,500,000 of additional work remains to be done to complete the renovation and to protect work already accomplished. Primarily this work involves the exterior of the building and is necessary to ensure water-tightness and insulation to save on utility consumption. The FY 1977 budget includes \$950,000 to repair and replace the roof which has deteriorated badly. Temporary repairs have been made to get through the Bicentennial period, but a complete, permanent job is needed to give long-term protection to the

building and its contents. A future year major job will be repair, replacement, double-glazing, and painting of windows.

5. History and Technology Building Repairs (\$150,000).

An amount of \$150,000 is required to begin a phased program of repairing the terrace of the History and Technology Building, which serves both as a pedestrian walkway around the building and the roof to interior basement work, machinery, and storage space. Apparent original construction deficiencies have led to general deterioration of the waterproofing under the paving material and consequent extensive leakage into work and collection areas. Total cost of repairs is estimated at \$600,000.

6. Renwick Gallery Exterior Repairs (\$250,000).

A recent engineering survey has concluded that the restored Renwick Gallery facade has been severely damaged by water entry through unprotected surfaces, mortar joints, deteriorated building sealants, and cracks caused by temperature changes. Extensive repairs are required for appearance purposes, to guard against the hazards of falling stonework, and to protect the interior of the building. The total repair job is estimated at \$500,000 to \$600,000 of which \$250,000 are sought in the FY 1977 budget to accomplish the most urgent work.

7. Building Improvements for the Handicapped (\$175,000).

Many Smithsonian buildings, planned or constructed prior to enactment of Public Law 90-480 (the Architectural Barriers Act of 1968), lack adequate access for physically handicapped visitors and employees. A recently concluded engineering survey of buildings revealed that numerous major and minor alterations should be accomplished to correct these conditions and provide safe accessibility. The total estimated cost of all work is approximately \$250,000.

Two of the most serious problems concern the Hirshhorn Sculpture Garden and the Constitution Avenue entrance to the Museum of Natural History. Persons in wheelchairs now can gain access to the Sculpture Garden only by being carried down a long flight of steps. Once in the garden, the handicapped person finds it difficult to move about on the gravel surface. In fact, a year's experience has shown that an improved surface is needed for greater durability. At the Natural History Building, necessary work includes improved ramps and automatic or power-assisted doors, and general upgrading of the vestibule area. Funding of \$175,000 is requested for these projects which will result in improvements for all users.

8. Building Equipment Monitoring Systems (\$200,000).

Smithsonian buildings contain a vast array of pumps, chillers, condensers, fans, airconditioning, dehumidifying, and other complex and costly mechanical equipment. Monitoring of this equipment's safe, efficient, and economical (increasingly important as utility bills steadily rise) operation is done currently on a tour basis involving personal inspection by journeyman-level mechanics. About 47 man-years of effort (at about \$12,000 a man-year) are expended with results that vary depending on the care taken in observation and recording of results. Available manpower is almost totally consumed with inspections and emergency repairs. Although preventive maintenance schedules have been prepared in detail on much of this equipment, very little such work can now be performed. Equipment failures with potentially serious consequences for building and collection safety are becoming more frequent.

Industry systems now exist that can be installed in the Institution to monitor operating equipment by sensors and report results electronically to central control panels. The installation of such systems would reduce by 60 percent the number of watch engineers. This savings of 29 man-years could be reapplied to preventive maintenance work. Such a system is estimated to cost \$1,000,000 for buildings on the Mall. Funding of \$200,000 is sought in the FY 1977 budget for the installation of equipment in one building. Manpower savings payoffs will begin to be realized following the second such installation.

CONSTRUCTION

1975 Appropriation.....	\$7,000,000 ^{/1}
1976 Appropriation.....	\$2,500,000 ^{/1}
Transition Quarter Appropriation.....	\$ 0
1977 Estimate.....	\$ 500,000

National Air and Space Museum

Construction of the new National Air and Space Museum building is now complete except for the correction of defects and omissions inevitable in a building of its size. In addition, within available funds, various improvements of both public and work areas are being undertaken which will contribute substantially to the building's utility and smooth functioning. Examples of this work are the addition of two elevators to provide access for handicapped persons to second levels in two exhibit galleries, the upgrading of the fire alarm and sprinkler system, the addition of seven offices, the extension of locker rooms for guards and custodial personnel, and improvements to a central control system to monitor all electronic and mechanical devices in the museum. Funds are also available to cover all foreseeable claims from construction contractors.

Since the building has been occupied for so short a period of time and since it has not yet been exposed to visitor traffic, it is not possible to predict what additional work may be necessary to convert an empty building into a fully operational museum. Therefore, rather than request the liquidation of the final \$500,000 of contract authority in FY 1977, the request will be withheld until FY 1978 when there will be a better opportunity to judge whether the additional funds will be necessary.

Museum Support Facility Planning

Public Law 94-98, approved by the President on September 19, 1975, authorizes the Smithsonian to plan museum support facilities and provides for the appropriation of such sums as may be necessary to carry out that authority. The Smithsonian requests an appropriation of \$500,000 to begin the design and specification stage for the first phase of construction.

Long-range development of the museum support facilities would be undertaken in increments which, in total, would provide some 1.9 million gross square feet (1.3 million net assignable square feet) to meet remedial and projected space and program needs for the next 25 years. These facilities would house and make more accessible for research purposes expanding national collections of specimens and artifacts documenting the fields of natural science, American history and technology, and art. The facilities would also provide additional space for support and maintenance services, the training of conservators, and would permit the return to exhibition and other public uses space in museum and gallery buildings now diverted to collections storage.

The proposed site for these facilities incorporates Federal land located in Silver Hill, Maryland, adjacent to land now owned by the Institution and used primarily by the National Air and Space Museum for storage and restoration. Smithsonian use of this site is included in the General Services Administration's master plan for the Suitland Federal Center, and a component parcel of 35 acres under the General Services Administration's jurisdiction is now available for transfer.

The Smithsonian is now actively planning for the first increment of construction which is scheduled for completion about 1980-1982. Phase I, a building complex of about 500,000 net assignable square feet, will be designed to meet the Smithsonian's most urgent collections and program space needs as projected through 1986. The National Museum of Natural History, including the Oceanographic Sorting Center (now in rental space), will be the major occupant of Phase I. The National Museum of History and Technology and the critical support functions of conservation, libraries, and archives also will be represented.

^{/1} Appropriation to liquidate National Air and Space Museum contract authority.

The Smithsonian recently completed a management study of specific Phase I requirements. A consortium of consultants was engaged to assist the Institution in this effort. Chief among the objectives of this study was a complete reanalysis of all space and physical facility requirements of the National Museum of Natural History and all other potential users. Also studied were alternate systems for management of collections and warehousing. A design concept was to be developed around specific massing schemes, general construction parameters, and site development best suited to overall objectives.

The study report is a preliminary planning study and does not present final plans and specifications of Phase I development. Highlights of the report's findings and recommendations were: (1) A space requirement estimate projected through 1986 for the National Museum of Natural History and all other users of Phase I facilities totaled 545,000 net assignable square feet; (2) The National Museum of Natural History will transfer 40 percent of its present collections to the support facilities to regain museum space for exhibits and professional staff; (3) Existing geological data suggests that the most economical design for the proposed site is on-grade, low-rise construction; and (4) A conventional single-level (specimen cases stacked two high) collections storage system was selected for low-rise structures with 19-foot ceiling height and 350 pounds per square foot floor load capacity. This configuration would permit future expansion by "double decking" at an economical cost.

Companion studies on collections (see S&E budget statement for the Office of Museum Programs) will assure effective management of collections resources and will provide further information on growth projections and resulting space requirements for future increments to the museum support facilities.

The \$500,000 requested for museum support facilities will be used to begin the design and specifications for Phase I. This initial design effort will include the development of a construction cost estimate. The Phase I building complex will be situated on the best building site available to the Institution at the time of design.

SMITHSONIAN INSTITUTION
"Salaries and Expenses"

Report of Appropriation by Objects
(In thousands of dollars)

	<u>1975</u> <u>Actual</u>	<u>1976</u> <u>Estimate</u>	<u>1977</u> <u>Estimate</u>	<u>Increase</u> <u>'77 over '76</u>
11 Personnel Compensation.....	42,199	49,305	52,999	3,694
12 Personnel Benefits.....	3,817	4,702	5,061	359
21 Travel & Transportation of Persons.....	622	831	661 ^{/1}	-170
22 Transportation of Things.....	350	429	386	-43
23 Rent, Communications, and Utilities.....	6,340	8,052	9,389	1,337
24 Printing and Reproduction....	1,272	1,425	1,066	-357
25 Other Services.....	8,593	9,428	7,475	-1,953
26 Supplies and Materials.....	3,241	3,214	3,362	148
31 Equipment.....	2,732	2,353	2,681	328
Acquisitions for Collections	477	468	672	204
32 Lands and Structures.....	157	--	--	--
41 Grants.....	1,103	1,159	1,346	187
42 Insurance, Claims, and Indemnities.....	<u>3</u>	<u>9</u>	<u>2</u>	<u>-7</u>
Total Appropriation.....	70,706	81,373 ^{/2}	85,100	3,727

^{/1} \$803 was included in the President's Budget.
As a result of OMB Bulletin #76-9 "Control of official travel," travel was reconsidered in FY 1977.

^{/2} This amount includes \$3,541 for pay, utility, and postage costs supplemental.

SMITHSONIAN VISITORS
(By fiscal year)

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural History	National Air & Space Building	Freer Gallery of Art	Museum of History & Technology/1	Fine Arts & Portrait Galleries/2	Renwick Gallery/3	Hirshhorn Museum & Sculpture Garden/4	Total/5
1961	1,024,526	2,912,371	2,047,973	987,858	130,746					7,103,474
1962	1,222,112	3,471,050	2,113,053	1,986,319	130,597					8,923,131
1963	1,450,280	3,534,182	2,288,397	2,673,618	183,359					10,309,836
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774				10,813,195
1965	1,045,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776				13,153,713/6
1966	1,870,010	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				13,312,586/8
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	216,573			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			15,052,967
1973	807,294	2,285,603	3,306,105	1,223,917	204,858	6,905,339	254,005	105,186		15,152,923
1974	739,651	2,040,731	3,067,694	1,285,598	219,346	5,850,227	329,487	175,672		13,703,406
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

/1 Museum of History and Technology opened January 1964.

/2 National Collection of Fine Arts 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 An additional 2-3,000,000 visitors to the National Zoological Park annually and 50,000 to the Anacostia Museum are excluded from these totals.

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

/7 Building closed for renovation October 1968.

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

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

FINANCIAL REPORT

T. AMES WHEELER, TREASURER

FY 1975

SMITHSONIAN'S FISCAL YEAR 1975 may be summarized as one of continued sound financial progress, even though financial needs continued to increase. In part, this need was to meet further large inflation-bred increases in salaries and wages, utilities, and other operating costs. In addition, new activities, including the opening on October 1, 1974, of the Hirshhorn Museum and Sculpture Garden and the continued step-up in preparations for the 1976 Bicentennial and next year's scheduled opening of the new National Air and Space Museum, required further substantial support. Fortunately, the Smithsonian received federally appropriated funds to cover a large part of these added needs. Federal appropriations also provided a major increase in funding for construction at the National Zoological Park at a rate designed to achieve completion of its master plan renovation over a ten-year period. Despite the generous increase in appropriations, however, tight budgeting of these funds and curtailment or postponement of a number of worthwhile projects was necessary. Formal management reviews of the Institution's priorities have been beneficial in directing our efforts toward the best uses of these available resources.

At the same time, our private trust funds were strengthened further during the year, despite the need to meet from our own resources the same types of inflationary cost increases as affected federally funded expenses. Private fund income derived from investments, gifts, the Smithsonian Associates programs, museum shops, concession fees, and other revenue-producing activities increased substantially in fiscal year 1975. Gifts, largely for specific

projects, such as Air and Space exhibits and the Bicentennial Festival of American Folklife, more than doubled those of the previous year.

These private trust funds have normally been used principally to take care of administrative expenses, to fund programs specified by donors, and to assist in a modest way a variety of our Bureaux' endeavors, such as small research efforts, publications, or the acquisition of collection items for which federal funds have not been available. In fiscal year 1975, larger private revenues made it possible to initiate a long-sought program of adding to the Institution's present meager unrestricted-purpose endowment funds. Increased private fund resources also made it possible to finance improvements to our Museum Shops and, assisted by foundation grants and other donations, construct a new training building for the Chesapeake Bay Center for Environmental Studies and start the renovation of the Cooper-Hewitt Museum's new quarters (toward which we are still seeking another \$1,000,000 of outside support). Continued success of the Institution's self-help efforts, which also play a major role in bringing the Institution's educational values to a wider audience throughout the Nation, will enable us to continue the strengthening of our endowment funds, the allocation of additional support to our bureaux in areas not covered by federal funding, and the construction of improved facilities for our visiting public and Smithsonian Associates already underway in the West Court of the National Museum of Natural History.

Overall Sources and Application of Funds

In Table 1 there is shown a comparative listing of all of the Institution's sources of financial support for the past four years. Federal appropriations totaling \$74,511,000 provided 76.3 percent of the \$97,623,000 of overall operating funds in fiscal year 1975. Grants and contracts at \$12,292,000 equaled 12.6 percent, and nonfederal (private trust funds) sources accounted for 11.1 percent of the total; the proportions provided by both of these sources rose in the past year, gains which are in line with the Institution's

TABLE 1. Overall Sources of Financial Support
[\$1,000's]

Sources	FY 1972	FY 1973	FY 1974	FY 1975
OPERATING FUNDS				
Federal appropriation:				
Salaries and expenses	\$44,701	\$51,633	\$58,868	\$70,706
Smithsonian Science Information Exchange	1,600	1,600	1,695	1,805
Special Foreign Currency Program	3,500	3,500	4,500	2,000
Subtotal	\$49,801	\$56,733	\$65,063	\$74,511
Research grants and contracts ..	8,088	8,996	9,996	12,292
Nonfederal funds:				
Gifts (excluding gifts to endowments)				
Restricted purpose	1,598	2,901	1,970	4,177
Unrestricted purpose	26*	33*	275*	253*
Income from endowment and current funds investment				
Restricted purpose	1,573	1,736**	1,750	1,724
Unrestricted purpose	334	436	747	953
Revenue-producing activities (net)				
	(141)	170	1,770	2,308
Miscellaneous	482	1,069	1,110	1,405
Total nonfederal funds ..	3,872	6,345**	7,622	10,820
Total Operating Support	\$61,761	\$72,074	\$82,681	\$97,623
CONSTRUCTION FUNDS				
Federal Construction Funds:				
National Zoological Park ...	\$ 200	\$ 675	\$ 3,790	\$ 9,420
National Air & Space Museum	1,900	13,000	17,000	7,000
Hirshhorn Museum	3,697	-0-	-0-	-0-
Restoration & Renovation of Buildings	550	5,014	1,070	1,490
Total Federal Construction Funds	\$ 6,347	\$18,689	\$21,860	\$17,910
Private Plant & Land Acquisition Funds:				
Cooper-Hewitt Museum	\$ 700	\$ 106	\$ 262	\$ 162
Hirshhorn Museum	-	-	1,000	-
Chesapeake Bay Center	386	149	70	15
Anacostia Neighborhood Museum	-	-	-	10
Total Private Plant and Acquisition Funds	\$ 1,086	\$ 255	\$ 1,332	\$ 187

* Excluding gifts to Associates (Included under Revenue-Producing Activities).

** Includes \$225,000 of fiscal year 1973 income transferred from Endowment Fund No. 3 for this purpose in fiscal year 1972.

TABLE 2. *Source and Application of Operating Funds for
Year Ended June 30, 1975*
(Excludes Special Foreign Currency Funds, Plant Funds, and Endowments)
[In \$,000's]

Funds	Nonfederal funds						
	Federal funds	Unrestricted			Restricted		Grants and con- tracts
		Total non- fed- eral funds	Gen- eral	Reve- nue pro- duc- ing	Spe- cial pur- pose	Gen- eral	
FUND BALANCES—							
1 July 1974	\$ -0-	\$ 6,792	\$ 3,477	\$ -0-	\$ 460	\$ 2,802	\$ 53
FUNDS PROVIDED							
Federal Appropriations	\$ 72,511						
Investment Income		\$ 2,677	\$ 950	\$ -	\$ 3	\$ 1,724	\$ -
Grants and Contracts		12,344	-	-	-	-	12,344
Gifts		4,577	46	147	207	4,177	-
Sales and Revenue		18,866	-	18,655	211	-	-
Other		1,194	228	-	330	636	-
Total Provided	\$ 72,511	\$ 39,658	\$ 1,224	\$ 18,802	\$ 751	\$ 6,537	\$ 12,344
Total Available	\$ 72,511	\$ 46,450	\$ 4,701	\$ 18,802	\$ 1,211	\$ 9,339	\$ 12,397
FUNDS APPLIED							
<i>Science:</i>							
Environmental Science	\$ 1,277	\$ 371	\$ 30	\$ -	\$ 5	\$ 46	\$ 290
Natl. Museum of Nat. History	9,260	1,338	84	-	44	216	994
Natl. Zoological Park	5,429	87	39	-	1	40	7
Fort Pierce Bureau	-	648	-	-	1	647	-
Science Info. Exchange*	1,805	1	1	-	-	-	-
Smithsonian Astrophysical Observatory	3,501	7,918	65	-	28	119	7,706
Radiation Biology Lab.	1,727	87	-	-	3	7	77
Smithsonian Tropical Research Institute	1,205	110	1	-	87	22	-
Interdisciplinary Communi- cations Program	-	1,244	23	-	-	15	1,206
Natl. Air and Space Museum	3,947	366	4	-	88	142	132
Other Science	1,272	1,079	8	-	15	110	946
Total	29,423	13,249	255	-	272	1,364	11,358
<i>History and Art:</i>							
Natl. Portrait Gallery	1,499	244	10	-	16	180	38
Natl. Collection of Fine Arts	2,046	66	10	-	43	11	2
Freer Gallery	380	1,088	-	-	-	1,088	-
Natl. Museum of History and Technology	4,992	660	50	-	82	467	61
Cooper-Hewitt Museum	209	482	2	-	-	298	182

TABLE 2. *Source and Application of Operating Funds for
Year Ended June 30, 1975—continued*
[In \$1,000's]

Funds	Fedral funds	Nonfederal funds					
		Unrestricted			Restricted		
		Total non- federal funds	General	Revenue pro- duc- ing	Special pur- pose	General	Grants and contracts
Archives of American Art	279	214	-	-	-	212	2
Bicentennial of the American Revolution ...	3,855	10	10	-	-	-	-
Hillwood	-	512	-	-	-	512	-
Hirshhorn Museum	1,541	110	96	-	8	-	6
Other History and Art ...	363	473	32	-	50	251	140
Total	15,164	3,859	210	-	199	3,019	431
<i>Public Service:</i>							
<i>Revenue-Producing Activities</i>							
Smithsonian Press	586	361	-	361	-	-	-
Performing Arts	482	1,205	27	558	-	303	317
Other	-	15,600	22	15,575	2	-	1
Anacostia Museum	403	42	20	-	-	12	10
Other Public Service	862	299	95	-	1	203	-
Total	2,333	17,507	164	16,494	3	518	328
<i>Museum Programs:</i>							
Libraries	1,564	-	-	-	-	-	-
Exhibits	936	10	-	-	8	-	2
Natl. Museum Act Pgms. ...	802	-	-	-	-	-	-
Other Museum Programs ...	1,867	323	32	-	4	126	161
Total	5,169	333	32	-	12	126	163
<i>Buildings Management and Protection Services</i>							
Administration	15,840	38	19	-	19	-	-
Overhead Recovered ...	4,582	4,100	889	621	18	407	2,165
Transfers for Designated Purposes—Out or (In) ...	-	(3,644)	(433)	(621)	(18)	(407)	(2,165)
Total Funds Applied	\$72,511	\$37,133	\$ 934	\$18,802	\$ 140	\$4,965	\$12,292
FUND BALANCES—							
30 June 1975	\$ -0-	\$ 9,317	\$3,767	\$ -0-	\$1,071	\$4,374	\$ 105

* Figures do not include revenues to SSIE from other sources of approximately \$800,000.

TABLE 3. *Application of Federal Appropriations
Fiscal Year 1972 through Fiscal Year 1975
(Excluding Special Foreign Currency Program)
[In \$1,000's]*

Area	FY 1972	FY 1973	FY 1974	FY 1975
Science	\$18,365	\$20,329	\$24,884	\$29,423
History and Art	6,285	8,022	12,130	15,164
Public Service	2,093	2,253	2,696	2,333
Museum Programs	5,881	6,660	4,321	5,169
Administration	3,235	3,987	4,693	4,582
Building Maintenance and Protection	10,442	11,982	11,839	15,840
Total	\$46,301	\$53,233	\$60,563	\$72,511

goal of restoring a better balance between federal and nonfederal support. Construction funds totaling just over \$18,000,000 in fiscal year 1975 continue to be provided almost exclusively by federal appropriations.

The application in fiscal year 1975 of all of these funds (excluding Special Foreign Currency funds, Plant funds and Endowment funds) to Smithsonian's diverse activities is set forth in Table 2. Detailed discussion of the various types of income and their uses follow.

FEDERAL OPERATING FUNDS

For fiscal year 1975, Congress provided \$70,706,000 of appropriated funds for the Smithsonian's normal operating purposes ("salaries and expenses"), a generous increase of \$11,838,000 over the preceding year.

Of this increase, \$6,500,000 was devoted primarily to furthering the three high-priority program objectives followed in fiscal year 1974, namely: (1) continued preparation for opening of the new National Air and Space Museum in July 1976; (2) development of Bicentennial activities; and (3) further strengthening of the many services needed for the protection, care, and cataloguing of collections and support for related research. The remaining 45 percent,

TABLE 4. *Special Foreign Currency Program*
Fiscal Year 1975 Obligations
 [In \$1,000's]

Country	Archeology	Systematic & Environmental Biology	Astrophysics & Earth Sciences	Museum Programs	Grant Administration	Total
India	\$ 196,206	\$ 69,740	\$ 34,900	\$ 48,472	\$ 96,631	\$ 445,949
Egypt	1,322,685	16,796	10,125	17,900	1,800	1,369,306
Pakistan	101,901	94,390	-	3,948	435	200,674
Poland	4,826	68,497	165,449	185,728	-	424,500
Tunisia	326,175	459,231	2,431	622	1,473	789,932
Burma	-	-	-	36	-	36
Total	\$1,951,793	\$708,654	\$212,905	\$256,706	\$100,339	\$3,230,397

or about \$5,300,000, plus an estimated \$2,000,000 more used for other purposes last year, was required to meet the costs of legislated and other uncontrollable increases in federal salaries, severe increases in utility and rental rates, and the inflationary rise in prices of other materials and services. An additional \$1,805,000 was provided for the work of the Smithsonian Science Information Exchange, a separately incorporated organization, engaged in recording, classifying and furnishing information on a wide variety of on-going research projects in such fields as water resources and medical and environmental studies. Its scope and usefulness has been expanding rapidly in recent years. The allocation of these federal operating funds among major categories of Institutional endeavor may be found in Table 3.

Additional appropriated funds for Smithsonian's Foreign Currency Program were greatly reduced in fiscal year 1975 to \$2,000,000, of which \$1,000,000 was reserved for the second of four equal payments to cover the United States' participation in UNESCO's international campaign to preserve archeological monuments on the Island of Philae in Egypt. Remaining amounts of these blocked foreign currencies allocated to the Smithsonian are awarded to universities and similar United States organizations to conduct research studies in a number of foreign countries (see Table 4).

FEDERAL CONSTRUCTION FUNDS

Federal appropriations for construction purposes in fiscal year 1975 amounted to \$10,910,000 plus \$7,000,000 more toward continued payments for the new National Air and Space Museum under contract authority provided in fiscal year 1973. The advisability of completing, over about a ten-year period, the phased renovation of the National Zoo in accordance with its approved master plan was given strong recognition in the boost to \$9.4 million in funds for this purpose. This fiscal year 1975 allotment will go toward construction of the new elephant and bird house environs and an education and administration building. The \$1.5 million granted toward restoration and renovation of buildings will, among other things, provide for installation of fire control systems, repairs to the old Arts and Industries Building, and improvements to the unsightly grounds south of the "Old Castle" Building.

GRANTS AND CONTRACTS

In recent years a major portion of the research projects of the Institution have been funded by grants and contracts from federal agencies, and in fiscal year 1975 this contribution increased significantly to more than \$12 million. As detailed in Table 2, the science programs of the Institution benefited in largest measure; the Smithsonian Astrophysical Observatory accounted for more than one-half of these funds, receiving support from the National Aeronautics and Space Administration for such projects as a Doppler tracking experiment for the Apollo-Soyuz project, meteor studies, and the satellite tracking program. Other awards to the Smithsonian covered such diverse programs as investigations on endangered plant species and a study of international oil spills to research on the ethnic origins of man in America and abroad, and a compilation of the papers of the artist Charles Willson Peale. A breakdown of the major granting agencies to the Smithsonian, together with the funds expended over the past four years, is shown in Table 5.

PRIVATE TRUST FUNDS

From 1846, the year in which Congress passed legislation establishing the Smithsonian Institution, until 1858, when the first federal

TABLE 5. *Grants and Contracts*
 [In \$1,000's]

<i>Federal Agencies</i>	FY 1972	FY 1973	FY 1974	FY 1975
Atomic Energy Commission	\$ 73	\$ 76	\$ 72	\$ 84
Department of Commerce	392	203	184	242
Department of Defense	916	969	872	799
Department of Health, Education and Welfare	411	306	261	219
Department of Interior	247	230	283	246
Department of Labor	11	51	163	87
Department of State	195	593	1,066	1,549
National Aeronautics and Space Administration	4,605	4,923	5,308	7,670
National Endowments for the Arts and Humanities	35	58	102	420
National Science Foundation	560	957	690	502
Other	643	630	995	474
Total	<u>\$8,088</u>	<u>\$8,996</u>	<u>\$9,996</u>	<u>\$12,292</u>

operating funds were appropriated for the use of the Institution (\$4,000), the current needs of the Smithsonian were met from the investment income of James Smithson's bequest to the American people. As Congress entrusted additional responsibilities to the Smithsonian, however, together with the annual appropriations to fulfill them, the federal portion of the Institution's budget grew, exceeding \$1,000,000 in 1927 and \$10,000,000 in 1963. While the private resources have also grown substantially since these early days, the maintenance of the uniquely federal-private nature of the Smithsonian requires constant efforts to increase our private sources of income.

In fiscal year 1975, these efforts again met with success, and the total private funds income to the Institution from gifts, investment income, revenue-producing activities, fees, and other revenues totaled \$11,007,000 compared to the prior year's level of \$8,954,000. The private trust funds provided 11 percent of the total operating support of the Institution, up from 9 percent last year. In addition, gifts and fund-raising efforts provided \$187,000 for plant improvements, principally for the Cooper-Hewitt Museum (see Table 6).

TABLE 6. Total Private Funds Income Fiscal Year 1975
[In \$1,000's]

Revenue Sources	Unrestricted Purposes			Total
	General & Revenue-producing	Special purposes*	Restricted purposes	
FOR OPERATING PURPOSES:				
Investments	\$ 950	\$ 3	\$1,724	\$ 2,677
Gifts	46**	207	4,177	4,430
Revenue-Producing Activities	2,308	—	—	2,308
Concessions and Miscellaneous	228	541	636	1,405
Total Operating Funds	<u>\$3,532</u>	<u>\$751</u>	<u>\$6,537</u>	<u>\$10,820</u>
FOR PLANT:				
Gifts—				
Anacostia Neighborhood Museum ..	\$ —	\$ —	\$ 10	\$ 10
Chesapeake Bay Center	—	—	15	15
Cooper-Hewitt Museum	—	—	51	51
Total Gifts	\$ —	\$ —	\$ 76	\$ 76
Miscellaneous—				
Cooper-Hewitt Museum	\$ —	\$ —	\$ 111	\$ 111
Total Plant	\$ —	\$ —	\$ 187	\$ 187
Grand Total	<u>\$3,532</u>	<u>\$751</u>	<u>\$6,724</u>	<u>\$11,007</u>

* Represents unrestricted income designated by management to be used only for specific purposes.

** Excluding \$145,000 gifts to Associates and \$2,000 gifts to Press (included under Revenue-Producing Activities).

Unrestricted Private Funds

In fiscal year 1975 the Institution was able to continue last year's pattern of generating unrestricted income excess to its immediate operating needs. While administrative expenses grew, along with the number of research and museum projects dependent on these unrestricted funds, it was nevertheless possible to take a major step toward our goal of building the Institution's endowments by a transfer of \$1,442,000 from current into unrestricted endowment funds. It is our intention to make similar transfers annually to the

extent compatible with current needs, in order to strengthen the Institution's private resources for the future.

As shown in Table 7, total unrestricted income rose 20 percent this past year to a record level of \$3,532,000. Despite a proportionately large rise in administrative expense due to salary in-

TABLE 7. *Unrestricted Private Funds
General and Revenue-Producing Activities*
(Excluding Special Purpose Funds and Gifts to Endowment)
[In \$1,000's]

Item	FY 1972	FY 1973	FY 1974	FY 1975
INCOME				
General Income:				
Investments	\$ 334	\$ 436	\$ 744	\$ 950
Gifts	26	33	151	46
Concessions and Miscellaneous ..	197	374	284	228
Total General Income	557	843	1,179	1,224
Revenue-Producing Activities:				
Associates	76	287	1,590	1,968
Shops	19	47	226	417
Press	(111)	(109)	(89)	(96)
Performing Arts	(50)	(65)	104	(79)
Product Development	-	69	37	218
Other Activities	(75)	(59)	(98)	(120)
Total Activities	(141)	170	1,770	2,308
Total Income	416	1,013	2,949	3,532
EXPENDITURES				
Administrative Expense	2,956	3,097	3,957	4,780
Less Administrative Recovery	2,639	2,772	3,345	3,644
Net Administrative Expense	317	325	612	1,136
Net Gain (Loss) Before Transfers ..	99	688	2,337	2,396
Less Transfers:				
To Plant	-	-	1,134	97
To Endowment	21	21	121	1,463
Other (Net)	17	124	307	546
Net Gain (Loss) After Transfers ...	61	543	775	290
Ending Balance	\$1,781	\$2,292*	\$3,477*	\$3,767

* Adjusted to reflect reclassification to Plant Funds of \$32,000 net investment in capitalized equipment in fiscal year 1974 and \$410,000 reclassification from Plant Funds to Current Funds in fiscal year 1975.

creases, other inflationary pressures, and a greater number of allotments to Smithsonian bureaux for special needs, the net gain before transfers for special purposes was nevertheless higher than last year. These transfers, described below, also exceeded those of the prior year, but left some \$290,000 to be added to the unrestricted fund balance at year's end, raising it to \$3,767,000, a level more compatible with the Institution's working capital needs.

Investment income, partly from unrestricted endowment and partly from short-term investment of current funds, increased to \$950,000 this past year; of this income, however, approximately \$190,000 was transferred to Smithsonian bureaux as interest on their restricted-purpose fund balances. Unrestricted gift income decreased, indicating once again the difficulty of obtaining support for general purposes. As has been the case in the prior two years, the major contributors to the Institution's unrestricted budget were the educational and revenue-producing activities, which have proven able, not only to cover their costs in extending Smithsonian programs beyond the geographical limits of Washington, but also to generate funds to supplement other research and museum programs of the Institution.

The Associates program, now ten years old, offers its various categories of members such benefits as tours, lectures, exhibit openings, special restaurant facilities, courses of study, discounts on Museum Shop merchandise, and, of course, the *Smithsonian* magazine. This program, with a membership in excess of 900,000 at year's end, is enabling the Smithsonian to subsidize important research projects for which funds would not otherwise be available, as well as to improve our educational services to the public. Due in large measure to the success of this program, the Institution will be able to construct special facilities in Washington during the Bicentennial year to welcome the ever-increasing number of visitors to our museums.

Substantial investments of time and money in the Museum Shops, to improve the quality and relevance of the merchandise as well as the physical design of the shops themselves, has resulted in a further gain in net income, to a level of \$417,000. One-third of these gains (\$139,000) was transferred directly back to the individual museums in which the shops are located for public education programs and purchases for the collections. The Product

Development Program received net royalties of \$218,000 from the sale by outside manufacturers of licensed products developed in concert with Smithsonian staff and related to the national collections. As with Museum Shops' gains, distributions were made to participating bureaux totaling \$83,000. Detail on these and other activities is shown in Table 8.

From the net gain of \$2,396,000, transfers were made as noted above to Endowment (\$1,442,000 to Unrestricted, and \$21,000 to Restricted Endowment), and to the Bureaux from Revenue-Producing Activities (\$222,000). In addition, transfers were made for land acquisition at the Chesapeake Bay Center (\$97,000), operation of the Cooper-Hewitt Museum (\$34,000), special research grants to Smithsonian scientists (\$102,000), payment of interest to bureaux on their restricted and special purpose funds (\$194,000), and miscellaneous incoming transfers of \$6,000.

TABLE 8. Revenue-Producing Activities for Fiscal Year 1975
[In \$1,000's]

Item	Total	Museum Shops	Smithsonian Press*	Smithsonian Associates	Performing Arts	Product Development	Other**
Sales and Revenues . .	\$18,459	\$3,211	\$189	\$13,524	\$436	\$302	\$797
Less Cost of Sales . . .	8,310	1,802	169	5,977	68	-	294
Gross Income	10,149	1,409	20	7,547	368	302	503
Gifts	147	-	2	145	-	-	-
Other Income	196	10	74	41	43	-	28
Total Income	10,492	1,419	96	7,733	411	302	531
Expenses	7,563	902	180	5,352	442	79	608
Administrative Costs	621	100	12	413	48	5	43
Income (Loss) Before Transfers	2,308	417	(96)	1,968	(79)	218	(120)
Less Transfers	219	139***	-	-	-	83***	(3)
Net Income (Loss) . .	\$ 2,089	\$ 278	\$(96)	\$ 1,968	\$(79)	\$135	\$(117)

* The privately funded activities of the Press as opposed to the federally supported publication of research papers.

** Includes Traveling Exhibitions, Belmont Conference Center, Photo Sales, "Commons" Restaurant, Center for Short-Lived Phenomena, Special Publications and Television Programs.

*** Allocations to the Smithsonian bureaux participating in this program.

Special Purpose funds are set out separately in Table 6 as well as in Table 2. These moneys include unrestricted gifts to particular bureaux (\$207,000) and receipts from various bureau enterprises (\$541,000), such as parking at the National Zoological Park or sale of commemorative envelopes at the National Air and Space Museum, which are then reserved for improvement of facilities or exhibits. The balance of these funds at June 30, 1975, was \$1,071,000, compared with \$460,000 in 1974. This substantial increase, despite the use of more than \$500,000 of such funds for numerous bureaux as shown in Table 2, reflects both the income noted above as well as the transfers from Revenue-Producing Activities and the payment of interest on fund balances.

Restricted Private Funds

The Institution also received \$6,537,000 in fiscal year 1975 for a wide variety of specified, or "restricted," operating purposes, as compared to \$4,266,000 in fiscal year 1974. This total includes gifts and grants of \$4,177,000, endowment income of \$1,724,000, and miscellaneous revenues of \$636,000; a partial breakdown showing the principal recipients appears in Table 9.

Endowment income provided the major operating support for the Freer Gallery of Art and the Fort Pierce Bureau, with the remainder of the endowment funds (outlined below) benefiting projects throughout the Institution. The gifts and grants to the Institution are far too numerous to describe fully, although a partial listing of donors follows this report. Their support to the restricted funds, however, provided the greater portion of the operating budgets of the Cooper-Hewitt Museum of Decorative Arts and Design and Hillwood, the former estate of Mrs. Marjorie Merriweather Post. Major support was provided to the National Air and Space Museum by gifts from the Summa Corporation for general exhibits purposes and from the German Federal Republic for construction and equipping of its new Spacearium; these gifts are of immense value to the Institution in its commitment to open this museum on July 4, 1976. Another Bicentennial project which received important funding was the Division of Performing Arts

TABLE 9. Restricted Operating Private Funds,* Fiscal Year 1975
[In \$1,000's]

Fund	Income						Net in-crease (de-crease)	Fund balance end of year
	Invoest-ment	Gifts	Miscel-laneous income	Total income	Deduc-tions	Trans-fers in (out)		
Archives of American Art	\$ 4	\$ 22	\$263	\$ 289	\$ 212	\$39	\$ 116	\$ 321
National Museum of History and Technology:								
American Banking Exhibit	-	115	-	115	111	-	4	272
American Maritime Hall	-	182	-	182	179	16	19	185
Cooper-Hewitt Museum:								
Operations	6	74	27	107	228	121	-	-
Funds for Collections and other								
Special Purpose Funds	-	283	5	288	70	6	224	806
Division of Performing Arts	-	707	-	707	303	3	407	342
Fort Pierce Bureau	\$25	-	1	526	645	(68)	(187)	5
Freer Gallery	839	12	169	1,020	1,088	2	(66)	125
Hillwood	-	517	15	532	512	(1)	19	98
National Air & Space Museum	-	814	30	844	142	15	717	780
Woodrow Wilson Center**	-	448	2	450	198	(5)	247	241
Other	350	1,003	124	1,477	1,339	(66)	72	1,199
Total Restricted Funds ...	\$1,724	\$4,177	\$636	\$6,537	\$5,027	\$62	\$1,572	\$4,374

* Excluding Grants and Contracts shown in Table 5 and also Restricted Plant Funds included in Table 6.

** Included herein even though federal funds of the Center are not a part of this report, since the Smithsonian is by legislative act the official recipient and custodian.

which plans an extended Festival of American Folklife in the summer of 1976; grants from General Foods Corporation and American Airlines are reflected in Table 9, with further payments from these corporations expected in fiscal year 1976. Generous support received from inland waterways transportation firms is making possible further progress toward the building of an exciting new American Maritime Hall in the National Museum of History and Technology.

The Woodrow Wilson International Center for Scholars received substantial grants both for on-going projects as well as for the establishment of the new Institute for Advanced Russian Studies, announced during this past year.

Miscellaneous receipts from the Freer Gallery sales desk and

special fund-raising activities of the Archives of American Art gave significant assistance to those programs.

As mentioned on page 39, another \$187,000 of restricted funds was also received for plant construction purposes, principally for renovation of the Carnegie Mansion, new home of the Cooper-Hewitt Museum. An additional \$1,000,000 for this purpose is still being sought.

Endowment Funds

The Smithsonian endowment funds had a market value on June 30, 1975, of \$41,939,000. They consist of the Freer Fund, whose income is used solely by the Freer Gallery of Art; Endowment Fund No. 3, which supports oceanographic research at the Fort Pierce Bureau in Florida; other restricted funds, maintaining a large number of research projects; and unrestricted funds. As of July 1, 1974, all Smithsonian endowment funds, exclusive of \$1,000,000 held in perpetuity in the U. S. Treasury, and some \$72,700 of miscellaneous securities, were pooled into the Consolidated Endowment Fund in order to facilitate investment management; separate accounting and administration continues, however, to be maintained on each fund in this pool. Table 10 shows the market values of these funds since 1971, reflecting additions from donations and reinvestment of income, limited withdrawals, and changes in securities valuations.

The investment of the endowment funds of the Institution is managed by three professional advisory firms, under the close

TABLE 10. *Market Value of Endowment Funds*
[In \$1,000's]

<i>Fund</i>	<i>6/30/71</i>	<i>6/30/72</i>	<i>6/30/73</i>	<i>6/30/74</i>	<i>6/30/75</i>
Freer	\$18,805	\$21,973	\$18,279	\$14,250	\$15,744
Endowment No. 3	12,331	14,641	13,196	11,128	12,321
Unrestricted funds	4,404	5,102	4,759	3,906	5,654
Restricted funds	7,066	8,185	7,634	6,266	7,148
Total	<u>\$42,606</u>	<u>\$49,901</u>	<u>\$43,868</u>	<u>\$35,550</u>	<u>\$40,867</u>

surveillance of the Investment Policy Committee and the Treasurer, and subject to policy guidelines set by the Smithsonian's Board of Regents. In 1972 the Board of Regents adopted the total return policy, under which the income paid to each endowment fund in the subsequent fiscal year is determined each March 31 by computing 4½ percent of the running five-year average of market values, adjusted for additions or withdrawals of capital. By selecting a fixed rate of return, regardless of what the actual yield may be, the investment advisors may select securities for growth as well as present yield, without being limited by the need to achieve a specified dividend and interest income level.

One of the goals of the Smithsonian administration has been to increase our endowment funds, particularly those for unrestricted uses, which are still minimal in relation to the size of the Institution, providing only a small fraction of one percent of the total operating income. Due to the unrestricted current funds surplus achieved for fiscal year 1975, it was possible, as described above, to transfer \$1,422,000 into the unrestricted endowment funds, and further such transfers will be a major priority in future years. Table 11 reflects the changes in the endowment funds this past year due to this transfer, reinvestment of income in certain restricted funds, donations, and stock market action. The substantial increase in market values over the year of \$3,930,000 is attribu-

TABLE 11. *Changes in Endowment Funds for Fiscal Year 1975*
[In \$1,000's]

Fund	Market value 6/30/74	Gifts and trans- fers	Interest and divi- dends*	Income paid out	Sub- total	Increase in market value 6/30/75	Market value 6/30/75
Freer Fund	\$14,250	\$ -	\$ 663	\$ 839	\$14,074	\$1,670	\$15,744
Endowment No. 3	11,128	68	539	525	11,210	1,111	12,321
Unrestricted funds	3,906	1,442	186	203	5,331	323	5,654
Restricted funds	6,266	94	316	344	6,322	826	7,148
Total	\$35,550**	\$1,594	\$1,704	\$1,911	\$36,937	\$3,930	\$40,867**

* Income earned less managers' fees.

** Not including Endowment Funds of \$1,000,000 held in U.S. Treasury, carrying 6 percent interest, nor minor amount of miscellaneous securities treated separately.

TABLE 12. Consolidated Endowment Funds
June 30, 1975

Funds participating in pool	Principal		Income	
	Book value	Market value	1975 Net income	Unexpended balance
FREER	\$15,324,967	\$15,743,612	\$ 839,354	\$123,631
ENDOWMENT NO. 3	12,249,146	12,320,695	525,114	-
UNRESTRICTED FUNDS	5,848,197	5,654,142	203,373	-
RESTRICTED FUNDS:				
Abbott, William L.	201,567	207,532	10,020	2,277
Archives of American Art*	-	-	1,024	-
Armstrong, Edwin James	4,129	3,678	173	-
Arthur, James	58,605	77,876	3,760	1,563
Bacon, Virginia Purdy	176,767	161,967	7,820	16,532
Baird, Spencer Fullerton	53,885	69,613	3,361	45
Barney, Alice Pike	42,032	55,806	2,695	7,725
Barstow, Frederic D.	1,932	1,987	96	1,902
Batchelor, Emma E.	64,533	57,725	2,787	8,854
Beauregard, Catherine Memorial Fund	73,964	77,552	3,745	4,133
Becker, George F.	303,620	280,334	13,536	307
Brown, Roland W.	48,642	53,224	2,570	8,865
Canfield, Frederick A.	55,035	85,801	4,143	1,893
Casey, Thomas Lincoln	24,241	25,001	1,207	3,063
Chamberlain, Frances Lea	41,269	54,794	2,646	5,959
Cooper, G. Arthur, Curator's Fund	3,144	3,003	130	-
Cooper-Hewitt Museum	152,251	134,564	6,497	-
Desautels, Paul E.	11,645	12,627	198	-
Div. of Mammals Curator Fund. . .	3,205	3,182	154	1,382
Div. of Reptiles Curator Fund . . .	959	941	45	141
Drake, Carl J.	277,202	262,355	12,508	30,209
Dykes, Charles	83,258	85,827	4,144	16,622
Eickemeyer, Florence Brevoort . . .	15,930	21,142	1,021	3,315
Guggenheim, David and Florence . .	228,910	199,823	9,648	-
Hanson, Martin Gustav and Caroline Runice	17,192	17,722	856	1,727
Henderson, Edward P., Meteorite Fund	590	692	33	33
Hillyer, Virgil	12,711	13,111	633	3,402
Hitchcock, Albert S.	2,308	3,119	151	236
Hrdlicka, Ales and Marie	90,934	96,952	4,681	5,606
Hughes, Bruce	28,046	37,288	1,800	24,096
Johnson, E. R. Fenimore	15,706	13,121	634	5,366
Kellogg, Remington, Memorial . . .	46,668	38,189	1,835	3,278
Lindsey, Jessie H.	560	548	26	1,030
Loeb, Morris	168,848	175,769	8,487	437
Long, Annette E. and Edith C. . . .	794	1,085	52	284
Lyons, Marcus Ward	8,424	7,084	342	-
Maxwell, Mary E.	28,741	38,205	1,845	7,806
Meyer, Catherine Walden	39,074	40,283	1,945	3,625

TABLE 12. Consolidated Endowment Funds
June 30, 1975—continued

Funds participating in pool	Principal		Income	
	Book value	Market value	1975 Net income	Unexpended balance
Nelson, Edward William	35,153	43,264	2,089	2,089
Noyes, Frank B.	1,874	2,030	98	1,335
Pell, Cornelia Livingston	14,349	14,871	718	3,067
Petrocelli, Joseph, Memorial	10,858	14,491	700	7,883
Ramsey, Admiral and Mrs.				
DeWitt Clinton	507,359	430,685	20,759	26,237
Rathbun, Richard, Memorial	20,584	21,308	1,029	11,785
Reid, Addison T.	34,396	35,456	1,712	2,523
Roebing Collection	176,974	233,713	11,284	-
Roebing Solar Research	47,877	45,813	2,212	-
Rollins, Miriam and William	290,173	337,235	16,078	956
Ruef, Bertha M.	61,253	51,136	2,469	3,599
Smithsonian Agency Account	200,933	173,087	7,891	-
Sprague, Joseph White	2,128,377	2,028,893	96,734	25,405
Springer, Frank	26,282	34,875	1,684	21,810
Stevenson, John A.	9,052	9,475	458	458
Strong, Julia D.	19,348	20,023	967	4,726
T.F.H. Publications, Inc.	16,793	16,213	715	7,894
Walcott, Charles D.	185,976	210,940	10,057	5,149
Walcott, Charles D. and Mary Vaux	674,384	894,812	43,205	11,417
Walcott Botanical Publications ...	85,193	108,546	5,241	2,643
Zerbee, Francis Brinckle	1,392	1,833	89	1,807
Total Restricted Funds	\$ 6,935,901	\$ 7,148,221	\$ 343,437	\$312,296
Total Consolidated Endowment Funds	\$40,358,211	\$40,866,670	\$1,911,278	\$435,927

* Transferred to Current Funds 6/30/75; Book Value \$20,925, Market Value \$21,106.

table primarily to the sharp upswing in the stock market, and the Smithsonian funds performed somewhat better during this period than the generally accepted market indexes.

Income of \$1,911,000, net of managers and custodial fees, was paid out during the year under the total return policy, which was \$207,000 in excess of actual dividend and interest yield. A breakdown of the income to the various funds participating in the Consolidated Endowment Funds is shown in Table 12, together with

the book and market values of those funds. Table 13 provides detail on the types of securities held by the Institution. A listing of the individual investments held in the Consolidated Endowment Funds at June 30, 1975, may be obtained upon request to the Treasurer of the Institution.

TABLE 13. *Endowment and Similar Funds Summary of Investments*

Accounts	Book value 6/30/75	Market value 6/30/75
INVESTMENT ACCOUNTS		
Consolidated Endowment Funds:		
Cash and Equivalents	\$ 1,108,888	\$ 1,108,888
Bonds	8,072,361	7,717,817
Convertible Bonds	2,579,706	2,446,265
Stocks	28,597,256	29,593,700
Total	\$40,358,211	\$40,866,670
Miscellaneous:		
Cash	\$ 731	\$ 731
Bonds	9,769	9,600
Common Stocks	3,572	13,987
Total	\$ 14,072	\$ 24,318
Total Investments Accounts	<u>\$40,372,283</u>	<u>\$40,890,988</u>
Other Accounts:		
Notes Receivable	\$ 48,354	\$ 48,354
Loan to U. S. Treasury in Perpetuity	1,000,000	1,000,000
Total Other Accounts	<u>\$ 1,048,354</u>	<u>\$ 1,048,354</u>
Total Endowment and Similar Fund Balances	<u>\$41,420,637</u>	<u>\$41,939,342</u>

Accounting and Auditing

The Private Trust Funds of the Institution, as well as the accounts of Smithsonian Science Information Exchange, Inc., the Smithsonian Research Foundation, and Reading Is Fundamental, Inc., are audited annually by independent public accountants. Their report for fiscal year 1975 on the Smithsonian is contained in the following pages, including a comparative balance sheet and a statement of changes in the various fund balances.

The Defense Contract Audit Agency annually performs an audit on grant and contract moneys received from federal agencies. In addition, the federally appropriated funds of the Institution are subject to audit by the General Accounting Office. The internal audit staff continues to conduct audits throughout the wide range of Smithsonian activities and contributes greatly to smooth administrative and financial management.

Gifts and Bequests to the Smithsonian

The Smithsonian Institution gratefully acknowledges gifts and bequests received during fiscal year 1975 from the following:

\$100,000 or more:

American Bankers Association	Hillwood Trust
American Airlines, Incorporated	S. C. Johnson & Son, Inc.
Anonymous	Mobil Foundation, Inc.
Federal Republic of Germany	The Marjorie Merriweather Post
General Foods Corporation	Foundation of D. C.
	Summa Corporation

\$10,000 or more:

American Commercial Barge Line Company	Exxon Corporation
American Telephone and Telegraph Company	Firestone Foundation
The Arcadia Foundation	The Ford Foundation
Atlantic Richfield Foundation	The General Electric Foundation
The Brown Foundation	Mary L. Griggs and Mary G. Burke Foundation
The Morris & Gwendolyn Cafritz Foundation	The Hillman Foundation, Inc.
CBS Foundation, Inc.	Interdisciplinary Communication Associates, Inc.
Charron Foundation	The J. M. Kaplan Fund, Inc.
Continental Grain Company	Lake Carriers' Associations
Mrs. David Craven	The Robert Lehman Foundation
Crowley Maritime Corporation	Howard and Jean Lipman Foundation, Inc.
Doubleday & Company, Inc.	Mr. Vasco McCoy, Jr.
The Henry L. and Grace Doherty Charitable Foundation, Inc.	State of Mississippi
The Charles Engelhard Foundation	Mobil Oil Corporation
The Eppley Foundation for Research	National Geographic Society
The T. M. Evans Foundation	New York State Council on the Arts
	Edward John Noble Foundation

\$10,000 or more—continued

Mr. and Mrs. David Packard	Surdna Foundation, Inc.
Pepsi Cola Company Foundation, Inc.	The Allie L. Sylvester Fund, Inc.
Phelps-Dodge Corporation	The Tobacco Institute, Inc.
Marjorie Merriweather Post	United Seamen's Service
Foundation u/a dated July 20, 1956	Dr. and Mrs. Jeremy P. Waletzky
The Relm Foundation	Matilda R. Wilson Fund
Rockefeller Brothers Fund	The Women's Committee of the
Estate of Gertrude Sampson	Smithsonian Associates
Sears, Roebuck and Company	World Wildlife Fund
St. Lawrence Seaway Commission	Xerox Corporation

\$1,000 or more:

The Ahmanson Foundation	The Bundy Foundation
Alcoa Foundation	Dr. and Mrs. I. F. Burton
American Can Company Foundation	Canal Barge Company, Inc.
Allied Chemical Foundation	Cargo Carriers, Inc.
American Express Foundation	Carter Hawley Hale Stores, Inc.
American College of Dentistry	Caterpillar Tractor Company
American Institute of Marine	Mrs. David Challinor
Underwriters	Chase Manhattan Bank
American Institute of Merchant	Mr. Peter B. Clark
Shipping	The Coca Cola Company
American Law Institute	Community Funds, Inc.
American Metal Climax	Continental Oil Company
Foundation, Inc.	Mrs. Adolph Coors III
American National Standard Institute	Copernicus Society
American Studies Association	Corning Glass Works
Amoco Foundation, Inc.	Dr. William H. Crocker
The Annenberg School of	Dr. and Mrs. Burrill Crohn
Communications	Dana Corporation Foundation
Anonymous	Mr. Paul L. Davies
Miss Amelia E. Anthony	Deere & Company
Arthur-Smith Corporation	Mr. and Mrs. Henry H. Dewar
Ashland Oil, Inc.	Dow Chemical U.S.A.
AVCO Corporation	Elsie DeWolfe Foundation
The Barra Foundation, Inc.	Dixie Carriers, Inc.
Mrs. Frederic C. Bartlett	Mr. Joseph W. Donner
The Bass Foundation	Ms. Ann Dreyfuss
Bath Iron Works Corporation	Mr. John A. Dreyfuss
Battelle Laboratories	Earhart Foundation
The Bedminster Fund, Inc.	The Ferdinand Eberstadt Foundation
Beneficial Foundation	Mr. and Mrs. Joel S. Ehrenkranz
Bethlehem Steel Corporation	Miss Edith Ehrman
Miss Helen Bissell	El Paso Natural Gas Company
Dr. and Mrs. Arthur Bloom	Mr. Alfred U. Elser, Jr.
Mrs. Beulah Boyd	Milton S. Erlanger, Trust
Mr. Daniel J. Boorstin	Esso Middle East
The Boswell Oil Company	Farrell Lines, Inc.

\$1,000 or more—continued

Fieldcrest Mills, Inc.
 First National Bank in Palm Beach
 Mr. and Mrs. Benson Ford
 Mrs. Edsel Ford
 Mr. and Mrs. Walter B. Ford II
 Ford Motor Company Fund
 General Telephone & Electronics
 Foundation
 Sumner Gerard Foundation
 The Gilman Foundation
 Gladders Barge Line, Inc.
 Mr. Alfred C. J. Glassell, Jr.
 Josephine Graf Foundation
 Mr. and Mrs. Rudolph F. Greiser
 Mr. Chaim Gross
 Mr. M. D. Guinness
 Hallmark Educational Foundation
 Mrs. Anne B. Harrison
 Mr. and Mrs. John Davis Hatch
 Mrs. Enid A. Haupt
 The Hecht Company
 Mr. Henry J. Heinz II
 Mr. C. Heurich, Jr.
 Mr. Louis W. Hill, Jr.
 Hiram Walker & Sons, Inc.
 Mr. and Mrs. James Stewart Hooker
 Imperial Embassy of Iran
 The Institute for Intercultural
 Studies, Inc.
 Institute of Psychiatry & Foreign
 Affairs
 Interstate Oil Transport Company
 International Association of Plant
 Taxonomy
 International Council for Bird
 Preservation Pan American Section
 Mr. James E. Jarnagin
 Mr. and Mrs. C. S. Justman
 Edgar J. Kaufmann Charitable
 Foundation
 Mrs. Harold J. Kersten
 Samuel H. Kress Foundation
 Mrs. Morris A. Levy
 Mr. Harold F. Linder
 The Link Foundation
 Mrs. Kathleen S. Louchheim
 S. C. Loveland, Co., Inc.
 Mrs. Percy C. Madeira, Jr.
 Mr. and Mrs. Edward P. Maffitt
 Maritime Overseas Corporation
 Mr. Lawrence K. Marshall
 Mr. and Mrs. William A. Marsteller
 Chauncey and Marion Deering
 McCormick Foundation
 Honorable and Mrs. George McGhee
 McGraw Hill, Inc.
 Mrs. Nancy M. McNeil
 Mr. Robert L. McNeil, Jr.
 Metck & Company
 Mrs. Margaret Carnegie Miller
 Mrs. Irene Morden
 National Bank of Detroit
 National Steel & Shipbuilding
 Company
 Newport News Shipbuilding
 Olin Corporation Charitable Trust
 Mr. and Mrs. Dan Oppenheimer
 Optimus Productions Ltd.
 PACCAR Foundation
 J. C. Penney Company, Inc.
 James C. Penney Foundation, Inc.
 Philip Morris Incorporated
 The Pioneer Foundation, Inc.
 Propeller Club, Port of New York
 Mr. and Mrs. William L. Richards
 Anne S. Richardson Fund
 Josephine C. Robinson Foundation
 Estate of Berenice Schwieder
 Security Storage Company of
 Washington
 Misses Elsie and Dorothy Shaver
 Mr. and Mrs. Alger Shelden
 Shipbuilders Council of America
 The Sidney Printing and Publishing
 Company
 Mr. Charles Simons
 Mrs. Frances F. Smith
 Mr. and Mrs. James K. Smith
 Standard Oil Company of California
 Mrs. Shirley Watkins Stein
 Mr. and Mrs. Mark Stevens
 The Symonds Foundation
 Tauber Oil Company
 Mr. and Mrs. Bertrand L. Taylor III
 Time Incorporated
 Trust Company of Georgia
 Foundation
 T R W. Foundation, Inc.

\$1,000 or more—continued

UNESCO	WGBH Public Broadcasting, Boston
Union Mechling Corporation	Ms. Gail D. Wilson
University of Michigan	Woodward and Lothrop, Inc.
University of Washington	Woolworth and Woolco Stores
Walco National Corporation	Worthington Sales Company
Mr. Richard W. Weatherhead	Charles W. Wright Foundation of
Ellen Bayard Weedon Foundation	Badger Meter, Inc.
Mr. and Mrs. Joseph Weinstein	Young Men's Christian Association
Mr. Royce S. Weisenberger, Jr.	Mr. and Mrs. Robert Zell
Westinghouse Electric Corporation	

\$500 or more:

Mr. and Mrs. Philip W. Amram	Mr. and Mrs. Sebastian Gaeta
Mr. Thomas D. Anderson	General Agents and Managers
Anonymous	Conference of N.A.L.V.
Arizona Historical Society	Mr. and Mrs. W. T. Gillham
Mr. and Mrs. James C. Barbour	Mr. Herbert R. Glaser
Mr. and Mrs. Bernhard G. Bechhoefer	Reverend and Mrs. C. Leslie Glenn
Mr. and Mrs. Roger K. Becker	Mr. Frederick R. Goff
Mr. and Mrs. John M. Begg	The B. F. Goodrich Company
Mr. and Mrs. Spencer M. Berger	Mr. and Mrs. William A. Gordon
Mr. and Mrs. J. Pierre Bernard	Mr. Gilbert Greenway
Mr. Frank E. Bevens, Jr.	Mr. and Mrs. T. R. Grosvenor
Mr. and Mrs. C. William Bliss	Mr. and Mrs. William A. Henry
Bloomington Brothers	Mrs. Maxine Harrison
Mrs. Neville J. Booker	Estate of Calvin Hathaway
Mr. and Mrs. Joseph E. Brown	Mr. and Mrs. Curtis L. Hillyer
Dr. Erika Bruck	Mr. and Mrs. Albert G. Hoffman
Dr. and Mrs. Curt F. Buhler	Mr. and Mrs. Hugh H. Honnen
Mr. and Mrs. Edward P. Bullock	Mr. and Mrs. Samuel G. Houghton
Mr. Hugh Bullock	Miss Dora Ide
Campbell Barge Line, Inc.	Mr. and Mrs. Frank N. Ikard
Mr. and Mrs. William F. Cassidy	Irving One Wall Street
Mr. and Mrs. Blair Childs	Mr. and Mrs. Joseph D. Isaacson
Copley Newspapers	Mr. William Jamison
Mr. Julien Cornell	Mr. and Mrs. B. F. Jones
Mr. and Mrs. F. W. Corwin	Atwater Kent Foundation, Inc.
Mr. and Mrs. George L. Craig	Mr. and Mrs. Morris Ketchum
Mr. and Mrs. B. W. Crain, Jr.	Mr. and Mrs. Edward F. Knight
Mrs. Allerton Cushman	Mr. and Mrs. Peter Knowles
Mr. and Mrs. Ray H. Davies	Mr. and Mrs. Paul Laurensen
Dr. and Mrs. B. N. Desenberg	Mr. and Mrs. Owen S. Lindsay
Dr. and Mrs. Lowell R. Ditzen	Mr. and Mrs. Martin L. Loftus
Mr. and Mrs. Leonard G. Doak	James A. MacDonald Foundation
Mr. and Mrs. Edward Edgar	Mr. and Mrs. John P. Mackinnon
Mr. and Mrs. Herbert R. Elsas	Mrs. Frances D. Martyn
Mr. and Mrs. Ralph W. Farr	Maxon Marine Industries, Inc.
First National Bank of Boston	Mr. Donald Mayer

\$500 or more—continued

Mr. and Mrs. John Mayer	Mr. and Mrs. Eugene Robe
Mr. D F. McClathey	Mr. and Mrs. Daniel Rogers
Mr. James R. McCredie	Mr. and Mrs. John L. Rogers
Dr. and Mrs. Leo A. McNalley	Saks Fifth Avenue, Chevy Cha
Mr. and Mrs. Harold W. Metz	Miss Frances Van Schaich
Mr. and Mrs. William J. Milton	Mrs. Alice S. Schwabe
Dr. and Mrs. Charles Morgan	The Schiff Foundation
Mr. and Mrs. James H. Morgan	Seamen's Bank of Savings
Mr. and Mrs. James D. Munro	Mr. and Mrs. H. L. Selinsky
Ogden Marine Inc.	Mr. Sidney N. Shure
Mr. Robert S. Pace	Mr. and Mrs. L. T. Sloane
Mr. and Mrs. Pierre Palmentier	Mr. and Mrs. Page W. Smith
Miss Blanche Parseghian	Mr. and Mrs. William D. Snyder
Mr. and Mrs. Chester R. Paulson	Sons of the Revolution
Mr. and Mrs. H. M. Peterson	Mr. and Mrs. Harry Stevens
Mr. and Mrs. Joseph F. Porter	Stroheim & Romann
Presentation Studios	Dr. Walter A. Stryker
Mr. and Mrs. Robert Probst	Mr. and Mrs. Alfred E. Tarr
Miss Elsie H. Quinby	Mr. and Mrs. Bela C. Tift
Miss Margaret Rathbone	Mrs. Arthur M. Tode
Miss Caroline S. Reed	Mr. John B. Trevor, Jr.
Mr. and Mrs. John S. Reese	Dr. Herman J. Viola
Mr. and Mrs. Sargent Reynolds	Mr. and Mrs. Albert C. Wall
Miss Esther M. Ridder	The Raymond John Wean Foundation

We also gratefully acknowledge other contributions in excess of \$400,000 received from more than 5,000 contributors in fiscal year 1975.

PEAT, MARWICK, MITCHELL & CO.

CERTIFIED PUBLIC ACCOUNTANTS
1025 CONNECTICUT AVENUE, N. W.
WASHINGTON, D.C. 20036

The Board of Regents
Smithsonian Institution:

We have examined the balance sheet of the Private Funds of Smithsonian Institution as of June 30, 1975 and the related statement of changes in fund balances for the year then ended. Such statements do not include the accounts of the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, nor other departments, bureaus and operations administered by the Institution under Federal appropriations as detailed in note 2 to the financial statements. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly the financial position of the Private Funds of Smithsonian Institution at June 30, 1975 and the changes in its fund balances for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PEAT, MARWICK, MITCHELL & CO.
September 5, 1975

SMITHSONIAN INSTITUTION—PRIVATE FUNDS

Balance Sheet

June 30, 1975
(with comparative figures for 1974)

	Assets		Liabilities and Fund Balances	
	1975	1974 (note 3)	1975	1974 (note 1b)
CURRENT FUNDS				
Assets				
Cash				
In U. S. Treasury	\$ 542,754	139,352	\$ 98,920	191,443
In banks and on hand	234,029	631,485	3,264,791	2,596,331
Total cash	776,783	770,837	461,266	1,626,468
Investments (note 3)	10,149,875	8,296,316	316,043	238,607
Receivables:				
Accounts, less allowance for doubtful accounts			5,215,531	3,645,757
of \$340,000 (\$200,000 in 1974)	1,882,057	1,247,671	659,995	334,955
Accounts receivable from other agencies	454,775	303,705	10,392,013	8,648,421
Reimbursements—grants and contracts, net	2,166,332	1,326,151		
Due from agency funds	4,853,924	3,416,630		
Total receivables	1,116,688	780,054	3,767,375	3,476,776
Prepaid expenses	482,278	420,272	1,071,155	460,514
Capitalized improvements and equipment, used in income producing activities, net of accumulated depreciation and amortization of \$537,236 (\$409,830 in 1974)	1,749,229	1,209,561	4,838,530	3,927,320
Total current funds	597,610	293,974	4,479,281	2,544,905
	\$19,709,824	15,640,646	\$19,709,824	15,640,646
ENDOWMENT AND SIMILAR FUNDS:				
Fund balances:				
Cash, net of receivables and payables on securities transactions	41,083	506,038		
Notes receivable	48,334	49,766	33,354,530	34,999,970
Investments (note 3)	40,205,043	239,897	2,224,323	2,286,957
Loan to U. S. Treasury in perpetuity at 6%	1,000,000	1,000,000	5,841,784	4,553,534
Total quasi-endowment			8,066,107	6,839,591
Total endowment and similar funds	\$41,420,637	41,839,561	\$41,420,637	41,839,561
PLANT FUNDS:				
Due from current funds	462,346	1,626,648	269,716	346,617
Real estate (note 5)	6,250,034	4,798,921	10,120	36,832
Restricted			71,319	625,610
Investment in plant			378,827	625,610
Total plant funds	\$ 6,691,380	6,417,889	\$ 6,691,380	6,417,889
AGENCY FUNDS				
Investments	10,000	10,000	451,146	1,896,636
Due from current funds	366,507	213,100	5,960,316	4,441,304
Total agency funds	\$ 396,507	223,100	\$ 6,691,380	6,417,889
	\$ 19,709,824	15,640,646	\$ 19,709,824	15,640,646
AGENCY FUNDS				
Due to current funds			246,032	136,121
Deposits held in custody for others			150,475	36,949
Total agency funds	\$ 396,507	223,100	\$ 396,507	223,100

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION—PRIVATE FUNDS
Statement of Changes in Fund Balances
Year ended June 30, 1975

	Current funds							Plant funds Investment Acquisition in plant
	Unrestricted							
	Total current funds	Total unrestricted funds	General purpose	Activities	Special purpose	Restricted	Endowment and similar funds	
REVENUE AND OTHER ADDITIONS:								
Auxiliary enterprises, estates Federal grants and contracts	\$18,844,324	18,846,324	—	18,685,993	211,031	—	—	—
Investment income (net of \$91,886 management and custodian fees)	2,396,696	951,143	948,318	—	2,625	1,445,553	—	—
Gains (losses) on sale of securities	(14,909)	(14,909)	(14,909)	—	—	—	(1,718,430)	—
Gifts, bequests, and foundation grants	4,576,523	399,725	43,625	146,929	207,171	4,176,798	302	—
Additions to equity in real estate	—	—	617,851	—	127,857	—	—	76,443
Dividends, fees, and commissions	745,708	745,708	42,846	—	201,780	636,602	—	1,519,012
Other—net	881,228	249,626	—	—	—	—	—	110,696
Total revenue and other additions	39,796,110	21,192,617	1,539,731	19,802,222	750,664	19,603,493	(1,718,028)	1,519,012
EXPENDITURES AND OTHER DEDUCTIONS:								
Research and educational expenditures	13,617,194	1,003,787	679,405	—	324,362	14,613,427	—	—
Administrative expenditures	6,949,541	1,248,978	888,870	630,700	—	4,271,885	—	—
Auxiliary enterprises	16,034,738	16,035,758	—	15,873,713	162,025	—	—	—
Expenditure for real estate and equipment	123,000	—	—	—	—	123,000	—	1,316,112
Retirement of indebtedness	—	—	—	—	—	—	—	79,899
Interest on indebtedness	—	—	—	—	—	—	—	26,512
Total expenditures and other deductions	35,875,526	18,567,596	1,569,283	16,494,413	504,900	17,307,930	—	1,422,523
TRANSFERS AMONG FUNDS—ADDITIONS (DEDUCTIONS):								
Mandatory—principal and interest on notes	(96,894)	(96,894)	(96,894)	—	—	—	—	96,894
Portion of investment gain appropriated	295,084	17,078	17,078	—	—	278,006	(295,004)	—
Income added to endowment principal	(141,677)	(141,677)	(146,315)	—	—	(141,677)	141,677	—
Appropriated as quasi-endowment	(1,473,436)	(1,463,351)	(1,463,351)	(219,087)	364,847	(10,285)	1,473,436	—
For designated purposes	—	(160,844)	(326,604)	(219,087)	—	180,844	—	—
Endowment released	20,925	—	2,088,722	(3,088,722)	—	20,925	(20,925)	—
Net increase in activities	—	—	2,088,722	(3,088,722)	—	—	—	—
Total transfers among funds—additions (deductions)	(1,395,998)	(1,723,611)	219,151	(2,307,609)	364,847	327,813	1,299,104	96,894
Net increase (decrease) for the year	2,524,586	901,210	290,599	(2,307,609)	610,611	1,623,376	(618,490)	1,519,012
Fund balances at June 30, 1974, as restated (note 1b)	6,792,225	3,937,320	3,476,776	—	460,544	2,854,903	41,839,561	1,589,636
Fund balances at June 30, 1975	\$ 9,316,811	4,839,530	3,767,375	—	1,071,155	4,479,281	41,420,637	5,960,316

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION—PRIVATE FUNDS
Notes to Financial Statements
June 30, 1975

1. *Summary of Significant Accounting Policies*

- a. *Accrual Basis*—The financial statements of Smithsonian Institution—Private Funds (note 2) have been prepared on the accrual basis, except for depreciation of plant fund assets as explained in note 1(h) below, and are in conformity with generally accepted accounting principles included in the American Institute of Certified Public Accountants Audit Guide "Audits of Colleges and Universities."
- b. *Current funds* include capitalized improvements and equipment used in income producing activities having a net carrying value of \$597,610 and \$293,974 at June 30, 1975 and 1974, respectively. Such assets together with funds held for additions and liabilities on acquisitions, which were previously included in plant funds, were reclassified to current unrestricted funds at the beginning of the 1975 year to better reflect assets and liabilities used in current operations. Figures for 1974 have been reclassified in the accompanying balance sheet at June 30, 1974 to put them on a comparable basis with 1975, resulting in an increase in the current unrestricted fund balance and a decrease in the plant funds balance of \$410,182 at June 30, 1974.
- Current funds used to finance the acquisition of plant assets and for provisions for debt amortization and interest are accounted for as transfers to the plant fund.
- c. *Fund Accounting*—In order to ensure observance of limitations and restrictions placed on the use of the resources available to the Institution, the accounts of the Institution are maintained in accordance with the principles of "fund accounting." This is the procedure by which resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with activities or objectives specified. Separate accounts are maintained for each fund; however, in the accompanying financial statements, funds that have similar characteristics have been combined into fund groups. Accordingly, all financial transactions have been recorded and reported by fund group.

Within each fund group, fund balances restricted by outside sources are so indicated and are distinguished from unrestricted funds allocated to specific purposes by action of the governing board. Externally restricted funds may only be utilized in accordance with the purposes established by the source of such funds and are in contrast with unrestricted funds over which the governing board retains full control to use in achieving any of its institutional purposes.

Endowment funds are subject to the restrictions of gift instruments requiring in perpetuity that the principal be invested and the income only be utilized. Also classified as endowment funds are gifts which will allow the expenditure of principal but only under certain specified conditions.

While quasi-endowment funds have been established by the governing board for the same purposes as endowment funds, any portion of such funds may be expended. Restricted quasi-endowment funds represent gifts for restricted purposes where there is no stipulation that the principal be maintained in perpetuity or for a period of time, but the governing board has elected to invest the principal and expend only the income for the purpose stipulated by the donor.

All gains and losses arising from the sale, collection, or other disposition of investments and other noncash assets are accounted for in the fund which owned such assets. Ordinary income derived from investments, receivables, and the like, is accounted for in the fund owning such assets, except for income derived from investments of endowment and similar funds, which income is accounted for in the fund to which it is restricted or, if unrestricted, as revenues in unrestricted current funds.

All other unrestricted revenue is accounted for in the unrestricted current fund. Restricted gifts, grants, endowment income, and other restricted resources are accounted for in the appropriate restricted funds.

- d. Investments are recorded at cost or fair market value at date of acquisition when acquired by gift.
- e. Inventories are carried at lower of average cost or net realizable value.
- f. Income and expenses in respect to the Institution's magazine and associates' activities are deferred and taken into income and expense over the applicable periods and are reported in the activities section of the current unrestricted funds.
- g. The Institution utilizes the "total return" approach to investment management of endowment funds and quasi-endowment funds. Under this approach, the total investment return is considered to include realized and unrealized gains and losses in addition to interest and dividends. In applying this approach, it is the Institution's policy to provide 4½% of the five year average of the market value of each fund (adjusted for gifts and transfers during this period) as being available for current expenditures; however, where the market value of the assets of any endowment fund is less than 110% of the historic dollar value (value of gifts at date of donation) the amount provided is limited to only interest and dividends received.
- h. Capitalized improvements and equipment used in income-producing activities purchased with Private Funds are capitalized in the current unrestricted fund at cost (see note 1(b)), and are depreciated on a straight-line basis over their estimated useful lives of five to ten years. Depreciation expense of \$130,525 for 1975 is reflected in the expenditures of the current funds.

Real estate (land and buildings) are recorded in the plant fund at cost, to the extent that restricted or unrestricted funds were expended therefor, or appraised value at date of gift, except for gifts of certain islands in

Chesapeake Bay, Carnegie Mansion, and Hillwood Estate which have been recorded at nominal values. Depreciation on buildings is not recorded.

All the other land, buildings, fixtures and equipment (principally acquired with Federal funds), works of art, living or other specimens are not reflected in the accompanying financial statements.

- i. The agency funds group consists of funds held by the Institution as custodian or fiscal agent for others.
- j. Pension Costs—All pension costs are funded as accrued.
- k. The Institution has a number of contracts with the U. S. Government, which primarily provide for cost reimbursement without fee to the Institution. Contract revenues are recognized as expenditures are incurred.

2. Related Activities

The Private Funds reflect the receipt and expenditure of funds obtained from private sources, from Federal grants and contracts and from certain business activities related to the operation of the Institution.

Federal appropriations, which are not reflected in the accompanying financial statements, provide major support for the operations and administration of the educational and research programs of the Institution's many museums, art galleries and other bureaus, as well as for the maintenance and construction of related buildings and facilities. In addition, land, buildings and other assets acquired with Federal funds are not reflected in the accompanying financial statements.

The following Federal appropriations were received by the Institution for the fiscal years ended June 30, 1975 and 1974:

	1975	1974
Operating funds	\$72,511,000	60,562,900
Special foreign currency program	2,000,000	4,500,000
Construction funds	17,910,000	21,860,000
	<u>\$92,421,000</u>	<u>86,922,900</u>

3. Investments

Quoted market values and carrying values of investments (all marketable securities) of the funds indicated were as follows:

	June 30, 1975		June 30, 1974	
	Carrying value	Market value	Carrying value	Market value
Current funds	\$10,149,875	10,083,444	8,298,318	7,971,088
Endowment and similar funds	40,015,177	40,532,249	40,043,593	34,822,438
Total investments ..	<u>\$50,165,052</u>	<u>50,615,693</u>	<u>48,341,911</u>	<u>42,793,526</u>

Total investment performance is summarized below:

	Net gains (losses)		
	Current funds	Endowment and similar funds	Total
Unrealized gains (losses):			
June 30, 1975	\$ (66,431)	517,072	450,641
June 30, 1974	(327,230)	(5,221,155)	(5,548,385)
Unrealized net gains for year	260,799	5,738,227	5,999,026
Realized net losses for year	(14,909)	(1,718,330)	(1,733,239)
Total net gains for year	\$ 245,890	4,019,897	4,265,787

Substantially all of the investments of the endowment and similar funds are pooled on a market value basis (consolidated fund) with each individual fund subscribing to or disposing of units on the basis of the value per unit at market value at the beginning of the calendar quarter within which the transaction takes place. Of the total units each having a market value of \$102.61 (\$84.60 in 1974), 333,155 units were owned by endowment, and 62,239 units by quasi-endowment at June 30, 1975.

The following tabulation summarizes the changes in the pooled investments during the year ended June 30, 1975:

	Carrying value	Market	Market value per unit
June 30, 1975	\$40,063,092	40,569,918	102.61
June 30, 1974	11,845,384	10,195,872	84.60
Increase	\$28,217,708	30,374,046	18.01

The increase in pooled investments during the year ended June 30, 1975 resulted primarily from the addition of certain endowment funds to the pooled investments.

4. Note Payable

The note payable in the principal amount of \$95,920 (\$191,843 in 1974), which is noninterest bearing, is secured by computer equipment and is payable in monthly installments of \$7,993 to June 30, 1976.

5. Mortgage Notes Payable

The mortgage notes payable are secured by first deeds of trust on property acquired in connection with the Chesapeake Bay Center. The details of the mortgage notes payable are as follows:

	1975	1974
Mortgage note, payable in semiannual installments of \$13,300, plus interest at the prevailing prime rate at the due date of the installment payment but not less than 8%, due July 1, 1980	\$146,300	172,900
6% mortgage note payable, due in monthly installments of \$451 including interest, due November 1, 1989	33,418	36,717

6% mortgage note, payable in semiannual installments of \$10,000, plus interest, due November 7, 1979	90,000	110,000
7% mortgage note, payable in annual installments of \$30,000, plus interest, due November 1, 1974	-	30,000
	<u>\$269,718</u>	<u>349,617</u>

6. *Pension Plan*

The Institution has a contributory pension plan providing for the purchase of retirement annuity contracts for those employees meeting certain age and length of service requirements who elect to be covered under the plan. Under terms of the plan, the Institution contributes the amount necessary to bring the total contribution to 12% of the participants' compensation subject to social security taxes and to 17% of the participants' compensation in excess of that amount. The total pension expense for the year was \$815,304 (\$729,068 in 1974).

7. *Management Fees*

The Institution provides financial and management services to certain affiliated organizations. In 1975 the Institution charged fees for such services as follows:

Smithsonian Research Foundation	\$125,000
Smithsonian Science Information Exchange	130,000
Reading Is Fundamental, Inc.	38,000
Center for Natural Areas	24,000
	<u>24,000</u>

8. *Income Taxes*

The Institution has been recognized as exempt from income taxes as a nonprofit organization described in Section 501(c)(3) of the Internal Revenue Code. It is the opinion of the Institution that it is also exempt from taxation as an instrumentality of the United States as described in Section 501(c)(1) of the Code. Formal recognition of this dual status will be sought from the Internal Revenue Service. Should the Institution's position not prevail, income taxes might be imposed on certain income of the Institution, under provision of the Internal Revenue Code dealing with unrelated business income as defined therein.

9. *Commitments*

The Institution has entered into a contract for construction of a West Court facility within the National Museum of Natural History at a total estimated cost of \$3,000,000 which is to be financed by a \$1,100,000 construction loan with the remainder being financed from the unrestricted general fund balance.

SMITHSONIAN INSTITUTION LIBRARIES



3 9088 01624 6332