

SMITHSONIAN INSTITUTION

1969 BUDGET

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SMITHSONIAN INSTITUTION

FISCAL YEAR 1969 BUDGET

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SMITHSONIAN INSTITUTION
FISCAL YEAR 1969 BUDGET
PROGRAM STATEMENT

The programs of the Smithsonian Institution are presented in this document in accordance with two schemes of classification: the activities and financial needs of each bureau and administrative unit of the Institution are described separately and, within each, three major program categories are distinguished--"Research and Scholarship," "Reference Collections," and "Public Enlightenment," in addition to "Administrative and Technical Support" and "Buildings Management." While this method of presentation is useful for purposes of analysis and clarity, there is a danger that it may obscure the very real and important interrelationship among the various parts of the Institution and among the kinds of activities that are performed in them. In fact, it is the interweaving of collections, research and public enlightenment that more than anything else accounts for the distinctiveness and vitality of the Smithsonian's activities in all three areas, just as the cooperation and interdependence of its various bureaus account in large measure for the strength of each of them.

The National Collections which the Smithsonian has amassed and for which it is responsible--collections of natural and man-made objects spanning the arts, the sciences and history--both demand and make possible research of a very special and important sort.

Research, for example, in systematic biology, in paleontology, in the history of art and design, and in important areas of the history of science and technology simply cannot be carried on without access to great collections of objects. But "access" involves much more than the mere existence of large numbers of objects. These objects must be preserved and cared for, they must be identified, they must be classified and arranged in some systematic order, and they must be made readily accessible to those who need them, before they can fully serve the needs of scientists and scholars. Thus research and scholarship are themselves necessary parts of the enterprise of collecting no less than they are the ultimate objective of that enterprise.

Similarly, the Smithsonian's activities in the area of Public Enlightenment--which reach not only the 14,000,000 people who visit our museums each year, but also those who read the Institution's publications, who view its traveling exhibitions, or who visit other museums which have been assisted by the Smithsonian--are intimately related both to its collections and to its research programs. Our exhibitions are, of course, based upon the objects in our collections and could not exist without them. At the same time, the scientists and scholars of the Institution serve to guarantee the accuracy and the intellectual integrity of all Smithsonian exhibitions and publications. Together, the Institution's collections, its scientists and scholars, and its skilled design staff are able to

produce instruments of public enlightenment that could not possibly be duplicated under any other circumstances.

The ways in which the activities of the Smithsonian Institution mutually reinforce each other, and the ways in which its bureaus work in concert toward common objectives, can best be seen by looking at a few of the most urgent concerns which cut across organizational and program divisions within the Institution. Each of these represents an area within which the Institution seeks additional funds in order to fulfill more effectively its traditional responsibilities.

1. Preserving America's Heritage. The Smithsonian Institution is deeply aware of its responsibility for preserving and documenting the growth and development of America's culture. While other institutions and agencies share in this national enterprise, the Smithsonian bears the major burden of insuring that the physical evidence of the nation's growth--in technology, in the arts, and indeed in every area of human life--will not disappear with the passage of time, but rather will remain accessible to the scholars and students of the future and to an interested public in the years to come. The Museum of Natural History contributes to this enterprise through its anthropological studies of the earliest cultures of this continent. The National Collection of Fine Arts is pursuing with renewed vigor its historic mission of documenting through original works the history of American fine arts, folk arts,

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crafts and design. Strengthened by the resources of the world-famous Cooper Union Museum and by the addition of the Renwick Gallery, the National Collection of Fine Arts promises to become what Congress had originally intended it should become--the leading center for the preservation, study, and appreciation of America's artistic heritage. Its resources will be complemented as the National Portrait Gallery acquires the resources to become a leading center of the history of American biography. The Division of Performing Arts and the Division of Musical Instruments are able to reveal a new dimension of the Smithsonian's collections and illuminate a new aspect of the nation's heritage by demonstrating the ways in which objects of folk art and craft have been made and the uses for which historically important musical instruments were designed. The Museum of History and Technology is the world's greatest repository of American artifacts from all eras and from all parts of the nation. It is unparalleled both as a center for the study of America's material culture and as a place in which the history of our nation in all its richness can be evoked through the use of authentic objects imaginatively displayed.

The combined resources of these bureaus and divisions--their collections, their scholarly staffs, their designers and technicians--constitute a unique national resource for the understanding of America. In accordance both with our own understanding of our mission and with the explicit views of the Congress, these resources will be increasingly devoted during the coming years to the commemoration

of the American Revolution. We are confident that the Smithsonian Institution, through imaginative programs of research and exhibition, can make a worthy contribution to the celebration of this seminal event in our history.

2. Conducting a continuing inventory of the world of man and nature. From almost its earliest days, the Smithsonian Institution has recognized the critical importance to the nation of comprehensive reference collections of natural objects of all kinds. Such collections are essential to the rapid and accurate identification of any individual object, be it a plant, an animal or a mineral specimen. Accurate identification of what he is dealing with must be the starting point of every scientist's researches. The Smithsonian's vast collections have long constituted a kind of national referral center upon which the entire community of natural scientists has learned to rely for the basic information that is needed for research of all kinds, from the most theoretical to the most applied.

The very fact that these great collections exist is evidence of the dedication of generations of Smithsonian scientists and of the farsightedness of the government that has supported them. The preservation of these collections and the continuing effort to ensure that they are as comprehensive as possible is a responsibility that the Smithsonian cannot shirk. The Institution strives to meet this responsibility through giving special attention to particular areas in which the national need for information is most urgent or in which the gap between what exists and what is known is greatest. The

Museum of Natural History is experimenting with the use of electronic data processing to facilitate access to information contained in its collections. It is expected that these experiments will vastly increase the usefulness of the collections, while at the same time effecting very substantial savings in both time and money. The Oceanographic Sorting Center, which is part of the Smithsonian's Office of Oceanography and Limnology, devotes its attention to an inventory of plant and animal life of the world's seas and lakes, the most mysterious of the regions of the earth and unquestionably our greatest reservoir of untapped resources. The Institution's program in tropical biology, including the Smithsonian Tropical Research Institute and many branches of the Museum of Natural History, seeks to lay the foundation for an understanding of those areas of the world which are at once the least known scientifically and the most explosive socially and politically. The Smithsonian Astrophysical Observatory and the Department of Mineral Sciences extend the range of our inventory to outer space itself, identifying and analyzing natural objects of extra-terrestrial origin.

Through its continuing inventory of the natural world, the Smithsonian has become an indispensable resource to the scientific community of the nation, unique in its ability to provide accurate and systematic information about the variety and distribution of the objects of nature.

3. Appraising the cause and extent of change in the natural environment. The scientific collections of the Smithsonian also

constitute a series of chronological benchmarks against which changes in the environment can be measured. In a universe that is increasingly subjected to human intrusion and to man-made changes, these measurements and our associated efforts of research may be critical to human survival. Unless man learns to understand the processes of change in the natural world, unless he learns to predict and control the natural consequences of his actions, his place in the world of nature will remain insecure.

The Smithsonian's vast store of knowledge about the natural world in the past and in the present must be the starting point for any comprehensive effort to measure change. But it is necessary also that we understand the principle of change itself, and the complex interrelationships of nature that make the effects of any action so difficult to predict. Thus the vigorous program of the Smithsonian Office of Ecology, carried on in the closest contact with the Institution's great systematic collections, seeks to reveal the living interrelationships among creatures whose structural and evolutionary relations are studied by our systematic biologists. The work of each stimulates and enriches the others and the result is one that could hardly be achieved under other, less favorable circumstances. Similarly, the scientists of the Radiation Biology Laboratory and of the National Zoological Park, whose work concentrates upon living organisms and thus upon the phenomena of growth and change, draw constantly upon the Institution's resources of systematic knowledge of the world

of nature. The anthropologists of the Smithsonian Office of Anthropology, using the Institution's collections of human bones and artifacts, seek to document and explain the phenomena of human physical and cultural change. At one extreme they are associated with the zoologists of the Museum of Natural History in the study of human evolution, while at the other extreme they are associated with the Museum of History and Technology's program of historic archaeology in the study of man as a maker of tools and as a social animal.

4. The diffusion of knowledge among men. As the national museum of the United States, and as the greatest museum establishment in the world, the Smithsonian must continue to concern itself with its historic mission of public enlightenment. In particular, the Smithsonian bears a special responsibility for insuring that its resources and those of all the nation's museums are used as effectively as possible for the education of our citizens and the enrichment of their lives. In establishing the Smithsonian more than a century ago, the Congress specified that the Institution should look to the diffusion of knowledge as well as to its accumulation, and throughout its history the Institution has pioneered in educational ventures of many kinds. Given the national commitment to education and cultural enrichment for all citizens, and given the new technology of the mid-twentieth century, the Smithsonian Institution is determined to fulfill its historic

responsibilities with the same vigor and imagination that have characterized its educational efforts in the past. Special attention must be given to those parts of our population and those areas of our country which museums in the past have failed to serve adequately. By establishing and operating experimental neighborhood museums, we hope to demonstrate that the objects that museums contain can be made relevant to the lives of even our most disadvantaged citizens. We confidently believe that this experiment will open a new era in the history of American museums.

By offering technological assistance and training to the staffs of museums throughout the country, through the agency of the United States National Museum, we can share with the entire community of museums the skills and experience that are among the greatest assets of the Smithsonian. By experimenting with new exhibits techniques in our own museums we hope to discover ever more effective ways of arousing the interest of our visitors and improving the process of open learning that is the peculiar hallmark of museums. By encouraging scientists, scholars, and students to come to the Smithsonian to pursue research making use of its collections, we contribute to the national effort to strengthen academic science and scholarship.

SMITHSONIAN INSTITUTION SALARIES AND EXPENSES
PROGRAM FOR FISCAL YEAR 1969

Functional Analysis of Priority Increases

A. Increasing Research Effectiveness

1. Through the selective strengthening of the professional and subprofessional staff	\$791,000
2. Through the development of laboratories and the provision of specialized equipment	520,000
3. Through the provision of other research resources	531,000
4. Through the timely dissemination of research results	144,000

B. Improving the Usefulness of the Reference Collections

1. Through the acquisition of selected objects and the maintenance of the collections	506,000
2. Through improved reference data handling capabilities	97,000
3. Through the development of the library resources .	204,000
4. Through the preservation of objects and natural resources	115,000

C. Presenting the Results of Accumulated Knowledge and Accomplishment

1. Through the presentation of exhibits.....	1,215,000
2. Through assistance to other museums	238,000
3. Through other public enlightenment services ...	222,000

D. Providing Other Essential Support for Program Operations

1. Through the maintenance and operation of the museums and other building and property areas ..	1,210,000
2. Through responsive administrative support	378,000
Total ..	<u>\$6,171,000</u>

SMITHSONIAN INSTITUTION SALARIES AND EXPENSES
PROGRAM FOR FISCAL YEAR 1969

Functional Analysis of Priority Increases

A. Increasing Research Effectiveness

1. Through the selective strengthening of the professional and subprofessional staff

Scientists and historians are needed to provide research capability in especially significant areas of Smithsonian competence. These will enable the Smithsonian Tropical Research Institute to carry on a program of investigation in a geographical area of special social and economic importance. The Smithsonian Astrophysical Observatory will augment its important radio and optical astronomy efforts in support of national goals in space science. Studies in palynology, the natural sciences of the Tropics and North America, ancient technologies, marine biology, and earth history will add to man's knowledge of his history and environment. Development of the Chesapeake Bay Center for Field Biology for ecological research and the education of students under actual field conditions on a relatively undisturbed area will allow meaningful comparison with other geographic areas in this rapidly changing region. An intensified international ecology program will contribute to the development of a world network of centers for the study of systems relevant to adjusting societies to natural resources. A curator for the unrivaled but untapped nuclear science collections in the Museum of History and Technology will open these collections for study. Additional subprofessional assistants including clerical, technician, and administrative personnel will enable the professional staff to devote more time to creative assignments. Specially critical are

additional technicians to relieve the present unsatisfactory 0.25 ratio of subprofessional to professional staff in the Radiation Biology Laboratory; additional technicians to sort, document, and distribute samples of marine biology and geology in the Oceanographic Sorting Center (25,000 samples collected since 1963 remain unprocessed for study); and to provide junior level project administrators in the Museum of Natural History. An increase of \$791,000 is required.

2. Through the development of laboratories and the provision of specialized equipment

Adequately equipped laboratories are not a luxury. The correct equipment in housing conducive to its proper use is basic to sound and useful research outputs. The Museum of Natural History needs to complete or establish a high temperature laboratory, a histology laboratory for invertebrate zoology studies, a bird preparation laboratory, and adequate acid preparation facilities for vertebrate paleontology. Specialized facilities and instrumentation will allow the Smithsonian Astrophysical Observatory to collect Cherenkov light with a second reflector in a unique extension of gamma ray astronomy; to permit the gradual advance of radio astronomy; to increase its capability to analyze extraterrestrial materials leading to anticipated lunar materials; and to continue the development of a selectively equipped optical observing facility on Mt. Hopkins, Arizona. An electron microscope for the Radiation Biology Laboratory would fill a serious equipment gap thereby enabling researchers to examine critically light-sensitive subcellular structures and to test and extend current theories concerning regulatory mechanisms. Radioisotopes

are required for experiments on light-sensitive materials unexaminable by any other means. \$520,000 will meet these needs.

3. Through the provision of other research resources

The minimal availability of supporting services and tools can make the difference between undertaking or not attempting a significant project. The maintaining of a high quality professional staff demands a measure of the support available elsewhere in the science community. Modest increases are required to extend computer applications, as effective research adjuncts, to provide mathematical and statistical analysis capabilities needed for numerical taxonomy in classifying plants and animals and studies of population dynamics. Manual means of analyzing masses of data are increasingly unsatisfactory or impossible. Translations of important library materials are essential to proper coverage of scientific and historical literature. The professional staff must have close photographic support in preparing many detailed and hard-to-photograph objects of science, history, and art for publications. Studies by outside experts support and round-out staff analytical capabilities on problems of limited term. Travel in connection with field investigations is critical particularly in light of disappearing biological baselines and the rapid change of technologies. Provision of financial support through the Research Awards Program will permit funding not otherwise possible of staff research proposals of high scientific merit often leading to cooperative publication of significant research results. The establishment of a limited cooperative program with selected American-sponsored basic research centers overseas will lead to

enhanced study opportunities for American scholars in the international research community. An increase of \$531,000 will provide these resources.

4. Through the timely dissemination of research results

Research is of little consequence unless its results are made known on a timely basis to potential users across the nation. Research without publication is largely wasted. It is necessary to augment the extremely limited clerical staff of the Smithsonian Institution Press and to provide for adequate printing costs in the face of a demonstrated increase in research manuscripts in art, science, and history, and carefully prepared forecasts of a continuing upward trend in the submission of these materials for publication. Knowledge of research in progress is also important to help scientific managers plan their programs and to prevent researchers from undertaking studies already in progress. The Science Information Exchange sees a highly productive important opportunity to use its years of interdisciplinary experience and production techniques to establish a core program of research to improve the methodology and management of information exchange processes. Additional funding of \$144,000 will support this work.

B. Improving the Usefulness of the Reference Collections

1. Through the acquisition of selected objects and the maintenance of the collections

The National Collections though long regarded as an essential focal point for scholarly research and public inquiry in the natural sciences, American history and technology, and art, are now coming into greatly increasing play each year. Increased national use intensified pressures to fill significant gaps, to make these great collections ever more useful to a broadening array of scholars and specialists from all sectors of the community, and to keep up with the challenge of exhibiting to the public current evidences of our national dynamism as well as portraying key episodes in our history. The Museum of History and Technology must acquire significant objects not now held to dramatize and educate on the events of, and leading to, the American Revolution. Similarly, this bureau must make a stronger effort in historic archeology in response to public and organization requests for assistance to locate, acquire, and preserve priceless and unique objects before their deterioration and loss. Both the National Collection of Fine Arts and the National Portrait Gallery must acquire paintings and other art works to fill gaps in historic chronology before the market places important items out of the public's reach. Many of these items will relate to the Revolutionary period and to its principal participants. Under the National Aeronautics and Space Administration's Artifacts Program, the National Air and Space Museum must transport, store, preserve, and prepare for permanent, special, and traveling exhibitions an increasing number of space items of timely and unusual public

interest. In all museums and galleries clerical and technician personnel are required to assist the curatorial staff in making the reference collections of maximum availability and utility for both staff study and interested public users, and in adequately staffing bureau libraries, archives, and photographic and conservation laboratories. Developing the reference collections to be responsive to demands upon them will require an additional \$506,000.

2. Through improved reference data handling capabilities

The largely three-dimensional specimens and objects in the National Collections are classified, explained, and elaborated on by masses of paper indices and other records. The collections themselves are of minimal usefulness unless written materials can be quickly and complete associated. Manual means of data handling are not feasible since uses cut across collections, time periods, geographic areas, and other parameters. The Information Systems Division can develop cataloging and circulation aids for the library and install information storage and retrieval systems for the Museum of Natural History, Museum of History and Technology, the National Portrait Gallery, and other collection-holding bureaus in order to enable these groups to manage their collections and respond to research and public interest inquiries quickly, accurately, and completely--abilities which users have a right to expect of the National Collections. The National Air and Space Museum must reduce to usable condition tons of unindexed documentation in the form of books, pamphlets, manuals, letters, photographs, films, and drawings by the development and installation of a modern data

handling system. An increase of \$97,000 will meet these collection data handling needs.

3. Through the development of the library resources

The Smithsonian libraries represent an essential resource used by staff scientists and exhibitors as well as by a large number of professionals from other agencies and institutions. In providing the complementary data essential to understanding natural science phenomena and the background for the development of cultures and technology, its supporting service enables the productive interplay of the collections and research staff. The Smithsonian Institution Libraries must increase the acquisition rate of books, periodicals, microfilm, and other essential library materials in order to acquire basic documentary information in all priority areas of Smithsonian subject matter activities and assigned responsibilities. Its annual acquisition rate of new materials is not commensurate with these commitments nor comparable to that of similar libraries. Further strengthening of the reference systems and their supporting services by additional top program management staff is essential. Innovative approaches must be taken through systems study to join the Libraries' literature resources with the museum reference collections in order to devise integrated channels of access to total information. The holdings of the Libraries must be reorganized into cataloging systems fully responsive to Institution and other user requirements. Staff, other agency, and public reference workload which has increased by 30 percent in the last year must be met with an adequate number of reference personnel in the central and branch libraries. An increase

of \$204,000 will enable the Institution to put its library resources on a firmer footing.

4. Through the preservation of objects and natural resources

The acquisition of objects and other facilities for reference and research purposes is not sufficient. These resources must be safeguarded and maintained in the best possible condition for future generations of users. The Conservation Analytical Laboratory must analyze, clean, repair, and conserve artifacts of man's culture and technology to prevent deterioration and possible loss. Many of these items are unique; others are irreplaceable except at great cost. Barro Colorado Island of the Smithsonian Tropical Research Institute, is a virtually unspoiled tract of plants and animals situated in an area of great scientific, economic, and political interest. The continued maintenance and preservation of this island as a biological reserve is a well-merited endeavor. It cannot be maintained for productive study at the current level of funding. The amount of \$ 115,000 is urgently requested.

C. Presenting the Results of Accumulated Knowledge and Accomplishment

1. Through the presentation of exhibits

It is through a planned and integrated program of permanent, traveling, and special exhibitions that the National Collections and the work of the Smithsonian in science, history, and art are made most widely known to the public. The Smithsonian Institution houses the world's largest assembly of museums and galleries whose exhibits serve to give pleasure, to inspire, and to educate millions of people in the wonders of nature, the contributions that our forebears have made to our history and development, and the changing character and challenges of modern life. Increasing national demands require further support of this effort in each Smithsonian museum. The United States National Museum seeks to meet the strong need for research, experimentation, and evaluation in efforts to produce the most effective exhibiting techniques to involve and reward the millions of viewers. This bureau is responsible for expanding the Institution's role in photography in order to meet a national need as outlined by the Vice President. Plans and programs of scholarship and exhibition involving contributions from all Smithsonian museums must be accelerated for the commemoration of the Bicentennial of the American Revolution. The demands of 14 million visitors including many groups of school children

make it imperative that the National Museum provide adequate trained museum guides. Efforts have begun and must be expanded to thoroughly identify the changing characteristics of museum visitors so that our resources can be brought into play for the most exhibits. These United States National Museum activities will require an increase of \$367,000. This same visitor pressure makes it a necessity for the Office of Exhibits to establish a program of preventive maintenance of visitor participation and audio devices and other refurbishing work to keep all exhibits in top viewer condition. Traveling exhibits of Smithsonian objects, including ones with particular emphasis on the American Revolution, can be planned and readied.

In the Museum of History and Technology which attracts over five million visitors a year, exhibition models, dioramas, replicas, cases, and other equipment must be provided for the halls of Photography, Musical Instruments, Armed Forces History, and Land Transportation. Operation of experimental neighborhood museums in disadvantaged neighborhoods provides an environment for open, non-directed learning through contact with real things. The Office of Exhibits and the Office of Education and Training can prepare experimental exhibits and provide other support for two neighborhood museums. An increase of \$309,000

for the Office of Exhibits, \$75,000 for the Office of Education and Training, and \$24,000 for the Museum of History and Technology will meet this need.

The National Air and Space Museum must refurbish, revitalize, and modernize many of its exhibits. It can take advantage of innovations in exhibit and display techniques to improve these outmoded exhibits viewed by two million visitors each year while at the same time experiment with exhibits for the planned new National Air and Space Museum building. This will require an increase of \$51,000. Many exhibits developed now can be used later. The salvage and preservation of the Civil War ship U. S. S. Tecumseh will provide a virtually unrivaled opportunity for an exhibition of great public interest. An increase of \$144,000 is required by the National Armed Forces Museum Advisory Board.

The National Collection of Fine Arts should make full utilization of the splendid and extensive gallery space in the Fine Arts and Portrait Galleries with special exhibitions of paintings, sculpture, and decorative arts. The International Art Program of the National Collection of Fine Arts, which brings American art to foreign viewers, needs to provide adequate overseas supervision of the handling of the many art objects borrowed from private owners in the United States. Nucleus staff is

required by the National Collection of Fine Arts for the new Renwick Gallery, planned as a showcase of American arts, crafts, and design, to gather collections and to plan exhibits and other programs. Minimal support for guidance of the Cooper Union Museum will maintain the integrity of this outstanding collection of the decorative arts. An increase of \$213,000 will provide for the above National Collection of Fine Arts' activities.

The National Portrait Gallery, scheduled for public opening in the Fine Arts and Portrait Galleries building in September 1968, must complete the initial opening theme, "What is an American, This New Man?" (Crevecoeur) and also develop exhibits for an outstanding first year's operation. This will require an increase of \$22,000. Increased exhibition use is made by the Smithsonian of significant objects borrowed from private citizens and organizations to round-out our own holdings. The Office of the Registrar should provide a centralized insurance capability, at a cost of \$10,000, to meet increased demands by private citizen lenders for adequate coverage. A total increase of \$1,215,000 will provide for these widely sought developments in the Smithsonian's outstanding exhibits program.

2. Through assistance to other museums

Traditionally, the Smithsonian Institution has made its resources of staff, collections, and laboratories available to personnel from other museums in order to aid them in developing their own programs and displays. This effort must be reinforced if the Smithsonian is to meet its National Museum Act responsibilities and to respond to an ever-increasing number of inquiries and requests for help, now in excess of 1,000 a year. The United States National Museum with the assistance of the Office of International Activities can plan, develop, and conduct an integrated Smithsonian program of museum assistance activities involving the training of curators, exhibits preparators, and technicians from other museums; consulting, advising, and providing documentation services and technical publications to museums; and arranging long-term exchanges of museum directors among museums in this country and abroad. This program designed to improve the role of all museums in the educational and cultural life of these communities, will require an increase of \$238,000.

3. Through other public services

The Smithsonian's expanded exhibits program has generated great public interest in the Smithsonian. The collections and other resources of the Institution can be used in other ways to satisfy this interest. The Museum of History and Technology and other bureaus, in cooperation with

the Division of Performing Arts, can continue and expand the popular concert demonstrations and exhibitions of early musical instruments. Such outstandingly received public events as the Festival of American Folklife (which attracted well over 400,000 persons to the Mall) and the puppet theaters will provide pleasure and instruction to the public and give an additional dimension and meaning to the collections. The Office of Public Affairs should provide basic information services, prepare building guides and other visitor orientation devices, produce educational and documentary films, and improve communications with the public and other organizations. Additional support by the Photographic Services Division is needed to meet public demands for photographs and slides of objects, exhibits, and special events. The International Exchange Service must have additional funds or continue to turn down worthwhile requests from outside groups to transmit publications overseas. An increase of \$222,000 will meet these public enlightenment needs.

C. Providing Other Essential Support for Program Operations

1. Through the maintenance, operation, and protection of the museums and other building and property areas

The provision of sound, attractive, clean, safe, and well-protected public and work spaces and supporting services is essential to the museum visitor's satisfaction in his stay and the productivity of the staff.

The total floor space of all Smithsonian buildings has increased from one million square feet in 1959 to three million. The number of visitors has increased from seven million in 1959 to fourteen million. The number of employees has increased from 860 in 1959 to over 2,500. Visiting hours have been lengthened in the summer. More special public events demand services. To meet these needs is the responsibility of the Buildings Management Department. In fiscal year 1969, this Department must provide for the maintenance and protection of five major new halls in the Museum of History and Technology. Present inadequate staffing to take care of sophisticated air-conditioning, heating, and ventilating systems in the Museum of Natural History must be corrected. A basic level of mechanical, custodial, and guard personnel must be provided in the to-be-opened Fine Arts and Portrait Galleries building. Skeleton staffing is required in the Renwick Gallery prior to its public opening while exhibitions are being readied. Protection against vandalism on the 16-acre Silver Hill facility, used for aircraft storage and restoration and other collection housing, by providing 24-hour-a-day guard service is essential. The Barney Studio House needs minimum custodial and guard service. Property maintenance and vehicle service is needed to support the work at the Chesapeake Bay Center for Field Biology. Neighborhood museums require protection

and other services. The engineering and construction office needs additional staff for planning, design, estimating, and inspection of restoration, renovation, and improvement of the buildings. The safety office needs support of its accident prevention, training, and investigation work. Rental of space is mandatory for relocation of laboratory and administrative spaces during the renovation of the Smithsonian Institution and Arts and Industries buildings. These needs can be met with an increase of \$1,210,000.

2. Through responsive administrative support

Each Smithsonian administrative and technical support units plays an important role in helping to assure that research, exhibition preparation, and education work can proceed to successful completion. Each of these units needs additional support to make it responsive to program demands. Administrative and clerical personnel are required to assist the Secretary and Assistant Secretaries in their executive direction, program planning, and review of the diversified activities of the Institution and in their official external responsibilities and commitments on various commissions, study groups, and councils. The Management Support groups require funding support to expand the preservation and restoration activities of the Archives and to enhance its public reference services. Assistants are needed to help in the Office of the General Counsel; to conduct on-site

Foreign Currency Program audits by the Internal Audit Office; to provide clerical assistance in the Programming and Budget Office and the Travel Services Office; and to implement central and more efficient management of the Institution's printing and duplicating facilities. Provision should be made for adequate funds for the rising costs of postage indicia mail and adequate clerical personnel and computer time for the Fiscal Division to meet an increased and more complex workload in payroll, accounting, auditing, and reporting. The Office of the Registrar must improve its mail handling services in light of a steadily increased volume, up to almost one million pieces in fiscal year 1967. Exploration and application of computer techniques to administrative and business tasks should be undertaken by the Information Systems Division where it can be shown that this will increase output, lower unit costs, or permit capabilities not now feasible with manual techniques. The Personnel Division will provide stepped-up training and counseling in employee development, in such areas as new technical and supervisory skills, enabling employees to advance to more responsible positions. Increased reporting requirements, especially to outside agencies, and the requirement to develop a computer system for compiling and maintaining personnel records should be supported. The Supply Division needs additional personnel to process an increased volume (52 per

cent more in fiscal year 1967 over 1966) of purchase and contract transactions, to receive deliveries and issue materials in buildings distant from the central supply office, and to furnish essential supplies, materials, and repair services needed in everyday operations by research, exhibit, and office activities. An increase of \$378,000 is requested to provide this necessary support.

SMITHSONIAN INSTITUTION
PROGRAM STRUCTURE BY ORGANIZATION

Fiscal Years 1967, 1968, and 1969 (With Increases by Priority)

"Salaries and Expenses" Appropriation

Program Category	1967		1968		1969		Increases		1969 Total		
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Priority I		Priority II		
							Pos.	Amount	Pos.	Amount	
I. Research and Scholarship											
Conservation Analytical Laboratory	3	\$31,000	3	\$45,000	0	0	0	1	\$63,000	4	\$108,000
Office of Exhibits	2	25,000	2	25,000	0	0	0	2	56,000	4	81,000
Museum of History and Technology	68	781,000	68	784,000	3	\$48,000	0	4	82,000	75	914,000
Museum of Natural History	100	1,534,000	104	1,533,000	19	304,000	0	15	320,000	138	2,157,000
National Air and Space Museum	5	80,000	5	85,000	0	0	0	6	81,000	11	166,000
National Armed Forces Museum Advisory Board.	1	20,000	1	20,000	1	16,000	0	1	10,000	3	46,000
National Collection of Fine Arts	11	96,000	15	131,000	5	62,000	3	1	20,000	23	213,000
National Portrait Gallery	6	150,000	7	290,000	2	11,000	0	0	0	9	301,000
Smithsonian Astrophysical Observatory	51	1,638,000	53	1,777,000	4	426,000	0	0	207,000	57	2,410,000
Smithsonian Tropical Research Institute	19	187,500	19	186,500	6	78,000	18	0	316,000	43	580,500
Radiation Biology Laboratory	25	394,000	31	383,000	15	215,000	10	0	302,000	56	900,000
Office of Ecology	5	118,000	5	118,000	8	85,000	5	0	165,000	18	368,000
Office of Oceanography and Limnology	18	268,000	18	254,000	14	100,000	25	1,290,000	1,290,000	57	1,644,000
Research Awards	0	400,000	0	400,000	0	160,000	0	0	240,000	0	800,000
Office of Education and Training	3	287,000	3	145,000	0	0	0	0	60,000	3	205,000
Office of International Activities	3	30,000	3	48,000	4	301,000	1	0	26,000	8	375,000
Information Systems Division	0	20,000	3	39,000	2	13,000	2	0	60,000	6	112,000
Photographic Services Division	9	104,000	9	99,000	2	23,000	3	0	21,000	14	143,000
Smithsonian Institution Press	18	565,000	20	579,000	2	84,000	2	0	31,000	24	694,000
Science Information Exchange	0	0	0	0	4	60,000	0	0	50,000	4	110,000
Total--Research and Scholarship	347	\$6,728,500	369	\$6,941,500	90	\$1,986,000	98	\$3,400,000	\$12,327,500	557	\$12,327,500
II. Reference Collections											
Conservation Analytical Laboratory	6	43,000	6	67,000	4	34,000	3	0	26,000	13	127,000
Office of the Registrar	8	80,000	8	75,000	2	10,000	0	0	0	10	85,000
Museum of History and Technology	38	453,000	38	439,000	4	139,000	4	0	48,000	46	626,000
Museum of Natural History	115	1,248,500	120	1,231,000	0	10,000	6	0	143,000	126	1,384,000
National Air and Space Museum	13	173,000	17	175,000	5	174,000	2	0	24,000	24	373,000
National Armed Forces Museum Advisory Board.	4	70,000	4	70,000	1	8,000	2	0	10,000	7	88,000
Freer Gallery of Art	5	34,000	6	38,000	2	21,000	0	0	3,000	8	62,000
National Collection of Fine Arts	8	116,000	11	188,000	4	67,000	0	0	56,000	15	311,000
National Portrait Gallery	11	264,000	14	390,000	7	76,000	6	0	68,000	27	534,000
Joseph H. Hirshhorn Museum & Sculpture Garden.	0	0	3	55,000	3	77,000	0	0	0	6	132,000
Smithsonian Tropical Research Institute	2	116,500	2	120,500	12	81,000	8	0	95,000	22	296,500
Information Systems Division	1	15,000	2	28,000	4	42,000	1	0	48,000	7	118,000
Smithsonian Libraries	41	456,000	44	535,000	14	183,000	10	0	176,000	68	894,000
Total--Reference Collections	252	\$3,069,000	275	\$3,411,500	62	\$922,000	42	\$697,000	\$5,030,500	379	\$5,030,500

SMITHSONIAN INSTITUTION
PROGRAM STRUCTURE BY ORGANIZATION

Fiscal Years 1967, 1968, and 1969 (With Increases by Priority)

Salaries and Expenses "Appropriation

Program Category	1967		1968		1969 I		Increases		1969 Total	
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Priority I		Priority II	
							Pos.	Amount	Pos.	Amount
III. Public Enlightenment										
United States National Museum	5	\$174,000	5	\$195,000	26	\$595,000	6	\$209,000	37	\$999,000
Office of Exhibits	164	2,008,000	164	2,008,000	22	309,000	0	99,000	186	2,416,000
Office of the Registrar	0	0	0	0	0	10,000	0	0	0	10,000
Museum of History and Technology	46	520,000	46	526,000	0	35,000	0	42,000	46	603,000
Museum of Natural History	38	438,500	39	392,000	0	0	0	0	39	392,000
National Air and Space Museum	19	201,000	19	208,000	2	51,000	4	50,000	25	309,000
National Armed Forces Museum Advisory Board	2	35,000	2	37,000	2	144,000	0	46,000	4	227,000
National Collection of Fine Arts	26	465,000	31	604,000	12	213,000	2	160,000	45	977,000
National Portrait Gallery	2	35,000	6	86,000	3	22,000	0	7,000	9	115,000
Office of Education and Training	7	55,000	10	70,000	9	75,000	6	35,000	25	180,000
Office of International Activities	0	0	0	0	1	10,000	0	0	1	10,000
International Exchange Service	9	128,000	9	96,000	2	19,000	0	0	11	115,000
Division of Performing Arts	5	70,000	5	59,000	4	96,000	0	38,000	9	193,000
Photographic Services Division	9	105,000	9	99,000	2	16,000	0	0	11	115,000
Office of Public Affairs	11	109,000	11	121,000	7	80,000	4	56,000	22	257,000
Total--Public Enlightenment	343	\$4,343,500	356	\$4,501,000	92	\$1,675,000	22	\$742,000	470	\$6,918,000
IV. Administrative and Central Services										
Office of the Registrar	16	168,000	18	167,000	1	28,000	0	0	19	195,000
Office of International Activities	3	30,000	3	43,000	0	0	0	0	3	43,000
Office of the Secretary	23	369,000	23	332,000	4	49,000	7	84,000	34	465,000
Management Support	29	432,000	37	377,000	11	103,000	8	118,000	56	598,000
Fiscal Division	21	294,000	25	352,000	2	47,000	4	62,000	31	461,000
Information Systems Division	2	61,000	3	43,000	6	55,000	19	233,000	28	331,000
Personnel Division	16	259,000	18	241,000	3	48,000	1	17,000	22	306,000
Supply Division	17	286,000	20	275,000	5	48,000	0	25,000	25	348,000
Total--Administrative Services	127	\$1,899,000	147	\$1,830,000	32	\$378,000	39	\$539,000	218	\$2,747,000
Buildings Management	723	\$6,648,000	799	\$7,199,000	114	\$1,210,000	129	\$1,180,000	1,042	\$9,589,000
Program Total	1,792	\$22,688,000	1,946	\$23,883,000	390	\$6,171,000	330	\$6,558,000	2,666	\$36,612,000
Mandatory Pay Increases										591,000
GRAND TOTAL										\$37,203,000

SMITHSONIAN INSTITUTION
Multi-Year Program Plans

	Appropriations (In millions of dollars)						
	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
<u>Salaries and Expenses:</u>							
I. Research and Scholarship.....	\$6.8	\$7.0	\$12.3	\$15.1	\$16.3	\$18.1	\$20.7
II. Reference Collections.....	3.1	3.4	5.0	5.5	6.2	6.6	6.8
III. Public Enlightenment.....	4.3	4.5	6.9	7.8	9.3	11.2	11.3
IV. Administrative and Central Services...	1.9	1.8	2.8	3.0	3.1	3.2	3.3
V. Buildings Management	<u>6.6</u>	<u>7.2</u>	<u>9.6</u>	<u>9.9</u>	<u>10.7</u>	<u>10.7</u>	<u>10.7</u>
Estimated totals, "Salaries and Expenses".....	\$22.7	\$23.9	\$36.6	\$41.3	\$45.6	\$49.8	\$52.8
<u>Museum Programs and Related Research</u> <u>(Special Foreign Currency Program)*.....</u>	\$2.3	\$2.3	\$6.0	\$6.5	\$7.0	\$7.2	\$7.5
<u>Construction Accounts:</u>							
Construction, authorized	3.9	2.3	32.5	50.0	6.4	4.2	11.9
Construction, not yet authorized.....	...	...	...	14.4	4.9	15.1	18.8

(See page C-5.)

* In amounts equivalent to dollars

ANALYSIS OF NEW OBLIGATIONAL AUTHORITY AND EXPENDITURES
(In thousands of dollars)

SMITHSONIAN INSTITUTION

Account and functional code	1967 enacted	1968 estimate	1969 estimate	Increase or decrease (-)	1969 exp. from 1969 NOA	Explanation of NOA requests
<u>General and special funds:</u>						
Salaries and expenses 704 NOA	22,699	23,883))))	37,203	13,234	. . . . .	The increase provides primarily for additional subprofessional and technical support for educational and scientific activities and opening of new galleries.
Exp.	21,338	24,079	35,007	10,928	30,977	
Museum programs and Related Research (Special Foreign Currency Program). 704	2,316	2,316	6,050	3,734	. . . . .	Excess foreign currencies are granted to American institutions for archeological and biological research, excavation, and preservation.
Exp.	852	2,759	4,000	1,241	2,200	
Construction and Improvements, National Zoological Park 704	1,589	400	1,800	1,400	. . . . .	Provides for construction of a restaurant and planning additional future facilities.
Exp.	448	272	4,274	4,002	1,026	
Restoration and Renovation of Buildings 704	2,300	1,125	6,988	5,863	. . . . .	Provides for renovation of the Arts and Industries building and for planning and construction of other educational and scientific facilities.
Exp.	140	1,253	5,000	3,747	769	

C/ Proposed for separate transmittal, wage-board supplemental

ANALYSIS OF NEW OBLIGATIONAL AUTHORITY AND EXPENDITURES (Continued)
(In thousands of dollars)

SMITHSONIAN INSTITUTION

Account and functional code	1967 enacted	1968 estimate	1969 estimate	Increase or decrease (-)	1969 exp. from 1969 NOA	Explanation of NOA requests
Construction 704 NOA	.....	803	14, 197	13, 394	.....	Provides for construction of the Joseph H. Hirshhorn Museum and Sculpture Garden.
Exp.	.....	574	5, 005	4, 431	4, 816	
National Air and Space Museum 704	.....	.....	9, 500	9, 500	.....	Provides for an initial construction increment for the National Air and Space Museum.
Exp.	.....	.....	2, 300	2, 300	2, 300	
Miscellaneous Appropriations 704	2, 928	1, 365	50	-1, 315	.....
<u>Intragovernmental funds:</u>						
Advances and reimbursements, Smithsonian Institution 704	7	12	14	2	.....
Total, Smithsonian Institution ..	28, 904	28, 613	75, 738	47, 125	.....
Exp.	25, 713	30, 235	55, 643	25, 336	42, 088	
		<u>C/79</u>	<u>C/7</u>			

C/ Proposed for separate transmittal, wage-board supplemental

ANALYSIS OF NEW OBLIGATIONAL AUTHORITY AND EXPENDITURES
(In thousands of dollars)

Account and functional code	SMITHSONIAN INSTITUTION					TRUST FUNDS	
	1967 enacted	1968 estimate	1969 estimate	Increase or decrease (-)	1969 exp. from 1969 NOA	Explanation of NOA requests	
Miscellaneous trust funds 704 NOA	83	30	30	.....	.....
Exp.	76	37	33	-4	30		
National Zoological Park 704 NOA	2,040	2,270	2,866	596	.....	
Exp.	1,894	2,234	2,828	594	2,646		
Total, Smithsonian Institution . NOA	2,123	2,300	2,896	.....	.....
Exp.	1,970	2,271	2,861	590	2,676		

STATEMENT OF RECEIPTS

Department or agency: **SMITHSONIAN INSTITUTION (32:50)**

General fund
 Special funds

108
STANDARD FORM
 April 1960, Bureau of the Budget
 Circular No. A-11, Revised,
 108 105

U.S. GOVERNMENT PRINTING OFFICE: 1960-O-547026

1ax

[In thousands]

Receipt symbol	Receipt title	1967 actual	1968 estimate	1969 estimate	Comments
	Receipts in each category were less than \$400.				

STATEMENT OF RECEIPTS

Department or agency: **Smithsonian Institution**

- General fund
- Special funds
- Trust

108 STANDARD FORM
 April 1960, Bureau of the Budget
 Circular No. A-11, Revised,
 108-105

U.S. GOVERNMENT PRINTING OFFICE: 1960-O-547026

Receipt symbol	Receipt title	[In thousands]			Comments	Fund
		19 67 actual	19 68 estimate	19 69 estimate		
33X8190	Canal Zone Biological Area Fund..	31	30	30		
33X8196	National Collection of Fine Arts Trust Fund	52	0	0		
3378046	National Zoological Park	2,040	2,270	2,866		
	Total receipts	2,122	2,300	2,896		

SMITHSONIAN INSTITUTION

Summary of Accounts (excluding trust and deposit funds)
(in thousands of dollars)

	1967 actual	1968 estimate	1969 estimate
Total obligations	28,816	36,046	76,079
<u>Financing:</u>			
Receipts and reimbursements from administrative budget accounts	-251	-195	-195
Unobligated balance available, start of year	-7,087	-7,384	-146
Unobligated balance available, end of year	7,384	146	0
Unobligated balance lapsing	42	0	0
<u>New obligational authority</u>	28,904	28,613	75,738
<u>Relation of obligations to expenditures:</u>			
Total obligations (affecting expenditures)	28,904	35,851	75,884
Obligated balance, start of year	5,240	8,043	13,580
Obligated balance, end of year	-8,043	-13,580	-33,814
Adjustments in expired accounts	-45	0	0
Expenditures	25,713	30,314	55,650

SMITHSONIAN INSTITUTION

Summary of Trust Accounts
(in thousands of dollars)

	1967 actual	1968 estimate	1969 estimate
Total obligations	2,116	2,307	2,899
<u>Financing:</u>			
Unobligated balance, start of year	-5	--10	-3
Unobligated balance, end of year	10	3	...
<u>New obligational authority</u>	2,122	2,300	2,896
<u>Relation of obligations to expenditures:</u>			
Total obligations (affecting expenditures).....	2,116	2,307	2,899
Obligated balance, start of year .....	...	146	182
Obligated balance, end of year	-146	-182	-220
Expenditures	1,970	2,271	2,861

SMITHSONIAN INSTITUTION
FISCAL YEAR 1969 BUDGET
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SMITHSONIAN INSTITUTION

SALARIES AND EXPENSES

For necessary expenses of the Smithsonian Institution, including research; preservation, exhibition, and increase of collections from Government and other sources; international exchanges; anthropological research; maintenance of the Astrophysical Observatory and making necessary observations in high altitudes; administration of the National Collection of Fine Arts and the National Portrait Gallery; including not to exceed \$35,000 for services as authorized by 5 U.S.C. 3109; purchase, repair, and cleaning of uniforms for guards and elevator operators, and uniforms or allowances therefor, as authorized by law (5 U.S.C. 5901, 80 Stat. 299), for other employees; repairs and alterations of buildings and approaches; and preparation of manuscripts, drawings, and illustrations for publications; \$23,913,000

\$37,203,000

(5 U. S. C. 7901; 5 U. S. C. 5701-5708; 20 U. S. C. 41-80d; 91; 44 U. S. C. 139a; 72 Stat. 68; Department of the Interior and Related Agencies Appropriation Act, 1968.)

Explanation and Justification of Change in Appropriation Language

The change in language deletes the limitation on expenditure for "experts and consultants" services.

Federal appropriation for all "Salaries and Expenses" of the Smithsonian Institution in fiscal year 1948 was \$1,800,312. This appropriation for the first time included language which limited to \$35,000 the amount for experts and consultants under former Section 15 of the Act of August 2, 1946, now found as 5 U.S.C. 3109. A General Accounting Office decision soon after the enactment of 5 U.S.C. 3109 held that the provision applied only to employee experts and consultants and not to independent contracts for expert and consultant services (26 Comp. Gen. 188). Tight controls were instituted to insure that the \$35,000 limitation for salaries of employee experts was not exceeded. Our annual appropriation grew to \$22,699,000 in fiscal year 1967, but the experts and consultants' salaries on the Smithsonian payroll amounted to only \$33,182. The expert and consultant field had always included individuals and firms of independent contractors maintaining their own staffs and offices. The Smithsonian budgets for contracts for these services as payments for "Other Services" rather than "Personnel Compensation." The amount of "Other Services" has grown in proportion to the annual appropriation without a corresponding increase of expert and consultant compensation paid through the payroll. No increase was requested or required under the aforementioned General Accounting

Office interpretation of the \$35,000 limitation. Recent attitude of the Comptroller General, however, indicates that all experts and consultants' services, regardless of whether their engagement is by contract or appointment, must be constrained by the specific appropriation language. This view necessitates that a revision in the appropriation language for 5 U.S.C. 3109 be requested in fiscal year 1969.

Funds available to the Smithsonian under 5 U.S.C. 3109 for experts and consultants represented 1.94% of our 1948 budget; applying this percentage to a \$30,000,000 budget for 1969 would suggest a need for a \$582,000 appropriation. The total amount of Smithsonian expenditure for service contracts for fiscal year 1967, only a fraction of which included independent contracts for expert and consultant services, however, was approximately \$375,000. Because of the difficulty in specifically designating independent contracts as expert and consultant contracts as opposed to professional or technical nonpersonal service contracts, the exact amount of appropriations for contracts for experts and consultants' services is unknown, and for that matter will always be subject to different interpretation. For this reason, it is requested that no specific appropriation ceiling be established for Smithsonian expert and consultant contracts or for appropriations authorized by 5 U.S.C. 3109, if such ceiling is intended to include independent contracts for experts and consultants' services.

SMITHSONIAN INSTITUTION
 SALARIES AND EXPENSES

Program and Financing (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0100-0-1-704			
<u>Program by activities:</u>			
1. Research and Scholarship	6,725	6,989	12,497
2. Reference Collections	3,050	3,430	5,083
3. Public Enlightenment	4,300	4,500	7,012
4. Administrative and Central Services	1,605	1,830	2,947
5. Buildings Management	6,032	7,420	9,664
Total program costs, funded.	21,712	24,169	37,203
Change in selected resources <u>1/</u> ..	976	-200	...
10 Total obligations	22,688	23,969	37,203

1/ Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1966, \$1,857 thousand; 1967, \$2,833 thousand; 1968, \$2,633 thousand; 1969, 2,633 thousand.

The Smithsonian Institution maintains public exhibits, representative of the arts, American history, aeronautics, space, technology, anthropology, geology, and biology; preserves for reference and study purposes millions of valuable items of scientific, cultural, and historic interest; conducts research in the natural sciences and in the history of cultures, technology, and the arts in the United States and in many foreign countries; and participates in the international exchange of scientific literature. The areas of research in the natural sciences include anthropology, biology, geology, solar radiations, and astrophysics. The Smithsonian is also undertaking an intensive program of classification and study of marine organisms collected in connection with the Government's expanded oceanographic program.

The Institution administers three museums, five scientific programs, three art galleries, the Armed Forces Museum Advisory Board, and associated international programs. It is responsible also for the operation and maintenance of seven main exhibition buildings; the Astrophysical Observatory in Cambridge, Mass.; the Smithsonian Tropical Research Institute in the Panama Canal Zone; the River Basin Surveys in Lincoln, Nebr.; a major storage facility at Silver Hill, Md.; a conference center at Elkridge, Md.; the Barney Studio House; the Chesapeake Bay Center for Field Biology; and supporting laboratories and storage space.

During the budget year the National Collection of Fine Arts and the National Portrait Gallery will become fully operational in their new building.

The U. S. National Museum will start comprehensive planning for the celebration of the Bicentennial of the American Revolution, and an urgent expansion of tropical biology, using the facilities of the Smithsonian Tropical Research Institute will be accomplished.

The National Air and Space Museum, with authorization for the construction of a suitable building will expand its program to record and exhibit the history of air and space flight; and to provide educational facilities and programs for the public and the scholar in the science and technology of aeronautics and astronautics. The Institution will continue to extend its scientific activities. Programs of cooperative research and training will be continued, and greater emphasis will be placed on the use of museum resources in primary and secondary school programs.

SMITHSONIAN INSTITUTION
 SALARIES AND EXPENSES
 OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 32-50-0100-0-1-704	1967 actual	1968 estimate	1969 estimate
Personnel compensation:			
11.1 Permanent positions.....	13,088	14,009	19,077
11.3 Positions other than permanent.....	505	507	505
11.5 Other personnel compensation.....	263	295	310
Total personnel compensation.....	13,856	14,811	19,892
12.0 Personnel benefits.....	1,005	1,087	1,485
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons.....	233	263	498
22.0 Transportation of things.....	165	135	283
23.0 Rent, communications, and utilities.....	1,317	1,427	2,125
24.0 Printing and reproduction.....	400	523	617
25.1 Other services.....	2,325	3,064	6,647
25.2 Services of other agencies			
26.0 Supplies and materials.....	873	1,019	1,685
31.0 Equipment.....	1,463	1,738	3,786
32.0 Land and structures			
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities.....	...	...	1,000
43.0 Interest and dividends			
44.0 Refunds			
Total costs, Smithsonian Institution.....	21,637	24,067	38,018
49.0 Total obligations			

☆ GPO: 1964-35-190

STANDARD FORM 300

July 1964, Bureau of the Budget
Circular No. A-11, Revised.
300-102

**SMITHSONIAN INSTITUTION
SALARIES AND EXPENSES**

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0100-0-1-704			
ALLOCATION TO GENERAL SERVICES ADMINISTRATION			
24.0 Printing and reproduction	1	...	1
25.1 Other services	60	27	30
32.0 Lands and structures	14	75	154
Total costs, General Services Administration	75	102	185
Total costs, funded	21,712	24,169	37,203
94.0 Change in selected resources	976	-200	...
99.0 Total obligations	22,688	23,969	37,203

SMITHSONIAN INSTITUTION
 SALARIES AND EXPENSES

PERSONNEL SUMMARY

Identification code 32-50-0100-0-1-704	1967 actual	1968 estimate	1969 estimate
Total number of permanent positions	1,792	1,946	2,666
Full-time equivalent of other positions	101	100	108
Average number of all employees	1,779	1,931	2,687
Average GS grade	8.1	8.0	7.9
Average GS salary.	\$8,830	\$8,823	\$8,443
Average salary of ungraded positions .	\$6,038	\$6,065	\$5,994

SMITHSONIAN INSTITUTION
SALARIES AND EXPENSES

Statement Relating 1967, 1968, and 1969 Programs

1967 Obligations		\$22,688,000
Receipts and Reimbursement		-32,000
Nonrecurring savings		<u>43,000</u>
 Total appropriation, 1967		 22,699,000
 <u>Decreases</u>		
<u>Nondiscretionary</u>		
Nonrecurring rehabilitation projects	\$ 225,000	
<u>Management improvements...</u>	<u>20,000</u>	-245,000
 <u>Program Increases</u>		
<u>Nondiscretionary</u>		
Anticipated supplemental Wage Board increases for 1968	<u>86,000</u>	86,000
 <u>Other Program Increases</u>		
Research and Scholarship	378,080	
Reference Collections	593,880	
Public Enlightenment	-129,960	
Administrative and Central Services	-39,000	
Buildings Management	<u>470,000</u>	<u>1,373,000</u>
 1968 Appropriation		 23,913,000
 <u>Decreases</u>		
<u>Nondiscretionary</u>		
Nonrecurring rehabilitation projects	225,000	
<u>Management improvements...</u>	6,000	
<u>Cost Reduction</u>	<u>30,000</u>	-261,000
 <u>Program Increases</u>		
<u>Nondiscretionary</u>		
Increased pay costs		
Absorption on 1968 raises and Wage Board increases, Dec. 1967	591,000	591,000

SMITHSONIAN INSTITUTION
SUMMARY OF INCREASES BY ORGANIZATION
(In thousands of dollars)

"Salaries and Expenses" Appropriation	1967		1968		1969 Increases					
	Pos.	Amount	Pos.	Amount	Priority I		Priority II			
					Pos.	Amount	Pos.	Amount		
United States National Museum	5	\$174	5	\$195	26	\$595	6	\$209	37	\$999
Conservation Analytical Laboratory	9	74	9	112	4	34	4		17	235
Office of Exhibits	166	2,033	166	2,033	22	309	2	155	190	2,497
Office of the Registrar	24	248	26	242	3	48	0	0	29	290
Museum of History and Technology	152	1,754	152	1,749	7	222	8	172	167	2,143
Museum of Natural History	253	3,221	263	3,156	19	314	21	463	303	3,933
National Air and Space Museum	37	454	41	468	7	225	12	155	60	848
National Armed Forces Museum Advisory Bd.	7	125	7	127	4	168	3	66	14	361
Freer Gallery of Art	5	34	6	38	2	21	0	3	8	62
National Collection of Fine Arts	45	677	57	923	21	342	5	236	83	1,501
National Portrait Gallery	19	449	27	766	12	109	6	75	45	950
Joseph H. Hirshhorn Mus. & Sculpture Garden	0	0	3	55	3	77	0	0	6	132
Smithsonian Astrophysical Observatory	51	1,638	53	1,777	4	426	0	207	57	2,410
Smithsonian Tropical Research Institute	21	304	21	307	18	159	26	411	65	877
Radiation Biology Laboratory	25	394	31	383	15	215	10	302	56	900
Office of Ecology	5	118	5	118	8	85	5	165	18	368
Office of Oceanography and Limnology	18	268	18	254	14	100	25	1,290	57	1,644
Research Awards	0	400	0	400	0	160	0	240	0	800
Office of Education and Training	10	342	13	215	9	75	6	95	28	385
Office of International Activities	6	60	6	91	5	311	1	26	12	428
International Exchange Service	9	128	9	96	2	19	0	0	11	115
Office of the Secretary	23	369	23	332	4	49	7	84	34	465
Management Support	29	432	37	377	11	103	8	118	56	598
Fiscal Division	21	294	25	352	2	47	4	62	31	461
Information Systems Division	3	96	8	110	11	110	22	341	41	561
Smithsonian Libraries	41	456	44	535	14	183	10	176	68	894
Division of Performing Arts	5	70	5	59	4	96	0	38	9	193
Personnel Division	16	259	18	241	3	48	1	17	22	306
Photographic Services Division	18	209	18	198	4	39	3	21	25	258
Smithsonian Institution Press	18	565	20	579	2	84	2	31	24	694
Office of Public Affairs	11	109	11	121	7	80	4	56	22	257
Supply Division	17	286	20	275	5	48	0	25	25	348
Buildings Management Department	723	6,648	799	7,199	114	1,210	129	1,180	1,042	9,589
Science Information Exchange	0	0	0	0	4	60	0	50	4	110
Total	1,792	\$22,688	1,946	\$23,883	390	\$6,171	330	\$6,558	2,666	\$36,612*

* This excludes \$591,000 for mandatory pay increases.

SMITHSONIAN INSTITUTION
MANDATORY PAY INCREASES

A priority increase of \$591,000 is required for personnel compensation and benefits. All operations of the Smithsonian Institution have been carefully reviewed to determine whether any portion of the requested increases can be absorbed. This will not be possible without seriously curtailing the research and scholarship, reference collections, and public enlightenment programs, and the protection, operation, and maintenance of the Smithsonian buildings and grounds.

(a)	Full-year cost of wage board increases effective December 1966 as determined through an analysis of all wage positions considering representative lapse factors	\$106,000
(b)	Full-year cost of wage board increases to be granted in October 1967	110,000
(c)	Periodic step-increases in accordance with the Government Employees Salary Reform Act of 1964. This includes the portion of the fiscal year 1969 step-increases to be paid in that year and the carryover cost from fiscal year 1968. The apparent cost was determined through a position-by-position study and has been reduced to real cost by offsets resulting from employees being separated or promoted before receiving step-increases and from filling some positions at a lower grade step than the former incumbents held.	185,000
(d)	Reclassification of positions	190,000
		<u>\$591,000</u>

<u>Mandatory</u>		
Annualization of positions, maintenance and protection.	\$ 100,000	
Protection and maintenance of new space in 1969.....	1,337,000	
Increased utility costs.....	<u>65,000</u>	\$ 1,502,000
 <u>Administrative Commitments</u>		
Youth Opportunity Program		
Cost.....	23,000	
Hirshhorn Museum	77,000	
Bicentennial preparations	<u>197,000</u>	297,000
 <u>Other Program Increases</u>		
Research and Scholarship	5,386,000	
Reference Collections.....	1,435,000	
Public Enlightenment	2,327,000	
Administrative and Central Services	917,000	
Buildings Management	<u>1,096,000</u>	<u>11,161,000</u>
1969 appropriation.....		\$37,203,000

SMITHSONIAN INSTITUTION
 SALARIES AND EXPENSES

Program and Financing (in thousands of dollars)

Identification code	19 67 actual	19 68 estimate	1969 estimate
32-50-0100-0-1-704			
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds (-)	- 32	...	...
25 Unobligated balance lapsing	42	...	...
40 <u>New obligational authority</u> ...	22,699	24,385	27,130
New obligational authority:			
40 Appropriation	22,699	23,913	27,130
44 Proposed supplemental for wage-board increases .....	...	33	...
44 Proposed supplemental for civilian pay act increases .....	...	439	...
Relation of obligations to expenditures:			
10 Total obligations	22,688	24,385	27,130
70 Receipts and other offsets (items 11-17)	- 32	...	...
71 Obligations affecting expenditures	22,656	24,385	27,130
72 Obligated balance, start of year ..	2,874	4,140	4,083
74 Obligated balance, end of year ..	- 4,140	-4,083	-5,703
77 Adjustments in expired accounts ..	-52		
90 Expenditures, excluding pay supplemental	21,338	24,000	25,480
91 Expenditures from wage-board supplemental .....	...	31	2
91 Expenditures from civilian pay act supplemental .....	...	411	28
Expenditures are distributed as follows:			
01 Out of current authorizations ...	18,464	20,302	21,457
02 Out of prior authorizations ...	2,874	4,140	4,053

★ GPO: 1964-0-735-186

A-5

Type size:
8 point 22 picas
Case 180.
Red underscore
Case 210

STANDARD FORM 301
Short form
July 1964, Bureau of the Budget
Circular No. A-11, Revised.

SMITHSONIAN INSTITUTION
SALARIES AND EXPENSES

Rec'd 12-29-67

FINANCING AND EXPENDITURES (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0100-0-1-704			
10 Total obligations (from program schedule).....	22,688	23,969	37,203
Financing:			
Receipts and reimbursements from:			
11 Administrative budget accounts (—).....	-32	...	...
13 Trust fund accounts (—).....			
14 Non-Federal sources (—).....			
16 Comptroller's Office (—).....			
17 Recovery of prior year obligations (—).....			
18 Unobligated balance available, start of year (—).....			
19 Unobligated balance available, end of year.....			
25 Unobligated balance lapsing.....	42	...	...
26 Unobligated balance reserved (—).....			
40 New obligational authority (appropriation).....	22,699	23,883	37,203
44 Proposed supplemental for wage-board increases.....	...	86	...
Relation of obligations to expenditures:			
10 Total obligations.....	22,688	23,969	37,203
70 Receipts and other offsets (items 11-17).....	-32	...	...
71 Obligations affecting expenditures.....	22,656	23,969	37,203
72 Obligated balance, start of year.....	2,874	4,140	4,030
74 Obligated balance, end of year (—).....	-4,140	-4,030	-6,226
77 Adjustments in expired accounts.....	-52	...	...
90 Expenditures, excluding pay, supplemental.....	21,338	24,000	35,000
91 Expenditures from wage-board supplemental.....	...	79	7

Use instead of Forms 301 and 303 when possible

☆ GPO: 1964-O-741-711

Program and Financing (in thousands of dollars)

Identification code	19 67 actual	19 68 estimate	1969 estimate
32-50-0100-0-1-704			
<u>Financing:</u>			
Receipts and reimbursements from:			
11 Federal funds (-)	-32	...	...
25 Unobligated balance lapsing	42	...	...
40 <u>New obligational authority</u> ...	22,699	24,385	26,617 27,130
New obligational authority:			
40 Appropriation	22,699	23,913	26,617 27,130
44 Proposed supplemental for wage-board increases .....	...	33	...
44 Proposed supplemental for civilian pay act increases .....	...	439	...
Relation of obligations to expenditures:			
10 Total obligations	22,688	24,385	26,617 27,130
70 Receipts and other offsets (items 11-17)	-32	...	...
71 Obligations affecting expenditures	22,656	24,385	26,617 27,130
72 Obligated balance, start of year ..	2,874	4,140	4,083
74 Obligated balance, end of year ...	-4,140	-4,083	-5,670 -5,703
77 Adjustments in expired accounts ..	-52		
90 Expenditures, excluding pay supplemental	21,338	24,000	25,000 25,480
91 Expenditures from wage-board supplemental .....	...	31	2
91 Expenditures from civilian pay act supplemental .....	...	411	28
Expenditures are distributed as follows:			
01 Out of current authorizations ...	18,464	20,302	20,977 21,457
02 Out of prior authorizations	2,874	4,140	4,053

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Program and Financing

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0100-0-1-704			
Financing:			
11 Receipts and reimbursements from:			
Federal funds (-) -----	- 32	-	-
25 Unobligated balance lapsing -----	42	-	-
40 New obligational authority --	22,699	24,385	26,617
New obligational authority:			
40 Appropriation -----	22,699	23,913	26,617
44 Proposed supplemental for wage-board increases -----	-	33	-
44 Proposed supplemental for civilian pay act increases -----	-	439	-
Relation of obligations to expenditures:			
10 Total obligations -----	22,688	24,385	26,617
70 Receipts and other offsets (items 11-17) -----	- 32	-	-
71 Obligations affecting expenditures	22,656	24,385	26,617
72 Obligated balance, start of year	2,874	4,140	4,083
74 Obligated balance, end of year --	- 4,140	- 4,083	- 5,670
77 Adjustments in expires accounts --	- 52	-	-
90 Expenditures, excluding pay supplemental -----	21,338	24,000	25,000
91 Expenditures from wage-board supplemental -----	-	31	2
91 Expenditures from civilian pay act supplemental -----	-	411	28
Expenditures are distributed as follows:			
01 Out of current authorizations	18,464	20,302	20,977
02 Out of prior authorizations	2,874	4,140	4,053

UNITED STATES NATIONAL MUSEUM

Program Category	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Public Enlighten- ment	5	\$174,000	5	\$195,000	37	\$999,000

The United States National Museum advances knowledge through research in science and history and conveys, through publications and exhibits, knowledge about the growth of science, the history of our national heritage, and the development of civilization. The museum preserves scholarly collections actively employed in support of research.

In addition to its own programs, the National Museum includes the Museum of Natural History, the Museum of History and Technology, the Office of Exhibits, the Conservation Analytical Laboratory, and the Office of the Registrar, justified on succeeding pages.

Increasingly, educators, historians, and scientists throughout the world are recognizing the value of objects of history and science in preserving and supporting understanding of history, our civilization, and man's relation to his environment. Community planners and school administrators show a growing interest in museum programs as major forces in educational and cultural development. The President, in a recent letter to the Federal Council on the Arts and

Humanities with regard to the needs of American museums, spoke to the importance of strengthening museums everywhere. Testimony at the hearings on the National Museum Act indicated that the needs include more trained museum personnel and more research and authoritative publications on up-to-date practices in exhibition, preservation, documentation, administration, and security. The Act directs the Smithsonian Institution through the National Museum to employ its experience and skills to meet these needs.

By virtue of its experience and scholarship in preserving and interpreting the national heritage through collections, research, and exhibition, the Smithsonian necessarily will have a central role in the celebration of the anniversary of the American Revolution. Such a role was played by the Institution in the development of a special exhibition for the Alaska Centennial. The need to proceed with programs already started with exhibits on the prelude to the Revolution and to build up to a significant commemoration in 1976 is urgent in view of the limited time ahead.

There is an increasing interest in exhibitions of photographs both as objects of art and for their unique ability to communicate information and understanding of events and trends. The Board of Regents of the Smithsonian, at the suggestion of the Vice President, has approved an expanded role in photography for the Institution.

An increase of \$804,000 is required for: strengthened programs of public enlightenment, including experimentation and evaluation of

exhibitions; expanded role of photography in exhibition; planning for the Bicentennial of the American Revolution; improved public orientation services; assistance to museums through programs of training, consultation, and information services; and the exchange of museum professionals.

Experimentation and Evaluation of Exhibitions

The value and effectiveness of museum exhibits and museum education are increasingly recognized by educators. Scores of requests from communities are received by the Smithsonian for advice on the use of museum resources in teaching and in stimulating the desire to learn. To improve exhibits in the Smithsonian and to provide authenticated advice on the exhibition and presentation of museum objects, the Smithsonian has instituted new studies in its long-continuing program of research, experimentation, and evaluation of exhibits for the public and as a supplement for classroom instruction.

It is planned to design experimental exhibits for study, tests, evaluation, and modification in order to gain new knowledge of the sciences and techniques underlying the involvement of viewers through all their senses with objects and exhibits and to determine, scientifically, the fundamental values producing the most effective exhibits.

Funds totaling \$82,000 are a priority need to employ 3 exhibits' researchers, and for contractual studies, supplies, and equipment.

To conduct this program at a fully effective level and to produce more timely results, an additional research professional and \$69,000 are required.

Expanded Role in Photography

For a number of years, the Vice President has spoken of the need for the Federal Government to give national recognition to photography as an art form uniquely capable of communicating facts and information about important concerns of our times. As Vice Chancellor of the Smithsonian's Board of Regents, he urged that the Smithsonian expand its traditional role in photography and undertake to meet this need. The Regents have approved a program of four major photographic exhibitions a year on subjects related to worldwide photographic journalism, the documentary camera, photographic art, and photography in science. To produce four exhibitions of national significance annually will require \$160,000, for 5 positions, travel, contractual services for the planning of exhibitions, and photographic supplies and equipment. This is a priority request.

Preparation for the Bicentennial of the American Revolution

The Smithsonian's long-established position as the nation's agency for historical preservation and research requires it to take a role of leadership in the national observance of the Bicentennial period. Such leadership will not be new to the Institution. A notable event in the early history of the National Museum was its participation at the International Exhibition at Philadelphia in 1876 to celebrate the 100th anniversary of the independence of the United States. The National Museum was charged

with showing the mineral and animal products of the country and its Indian tribes in both prehistoric and modern times. Congress appropriated \$100,000 to the Smithsonian for these purposes. Smithsonian museums have already prepared exhibits on the prelude to the Revolution and are initiating individual programs of research, publication, and collecting required to be ready for the observance.

To provide national leadership, to coordinate the widespread activities of Smithsonian components, and to plan a program of scholarship and exhibition, the National Museum will require, on a priority basis, \$90,000 to engage a scholar of recognized stature for program direction, to employ 4 assistants, and to provide for travel, contractual services, and other related expenses.

Public Orientation Services

Services for the orientation of museum visitors and the instruction of school groups are becoming increasingly inadequate to meet the demands of rapidly increasing museum attendance. Attendance totals more than 14,000,000 visitors a year in five Smithsonian museums. During July 1967, more than 900,000 persons were counted in the Museum of History and Technology alone. This immense concentration of visitors requires the presence of trained museum guides to direct the visitors' attention to important historical and scientific exhibits and objects and to provide meaningful explanations.

As a highest priority, it is necessary to initiate effective orientation services. This will require \$35,000 to provide for 1 attendant service supervisor and 4 trainee guide attendants.

To start the service at a desirable level in a second major museum building, an additional 5 guide attendants and \$35,000 are required.

Training of Museum Personnel

For more than 100 years, the Smithsonian has engaged its staff, collections, and laboratories in training of museum curators, exhibits preparators, and museum technicians from other museums and elsewhere. In all Smithsonian laboratories in 1967 a total of 12 man-years and \$150,000 of staff time and expenses was devoted to all levels of training. An additional \$54,000 were provided to support the training of science museum technicians at other museums.

Museum directors and their associations repeatedly request much more museum training to qualify young college graduates to fill existing needs for curators and technicians throughout the United States. To instruct an additional 20 trainees at the Smithsonian and in cooperating museums, a priority request is for a supervisory instructor, an instructor, and a clerk-stenographer, and \$100,000. This increase includes funds for the support of 20 trainees averaging \$3,500 each for six months of work training.

To operate the program at the level required to meet more nearly the demand a further \$57,000 for 16 additional trainees are needed.

Museum Consultants and Museum Information Services

The National Museum Act of 1966 affirms the long-standing advisory and information services which the Smithsonian has provided to museums throughout the United States and abroad. Hundreds of museum directors, curators, and technicians have come to Washington for consultation and advice on their plans, programs, building designs, and museum operations. Since the Museum Act was approved, inquiries have increased to the rate of 1,000 a year. At the same time, the community services and educational and cultural activities of museums have increased greatly in volume and variety. It is increasingly necessary to draw upon the experience of professionals at other museums, to collect and document an increasing amount of information about modern museum practices and practitioners, and to make this information available to museums by supporting the consultation services required and by maintaining a complete and efficient documentation center. While the facilities offered to schools by the Elementary and Secondary Education Act of 1965 stimulated a greater level of activities among the schools this act offered no assistance to museums.

The National Museum has a high priority request for \$80,000 to conduct the required program of museum assistance and consultation. This will permit the employment of a museum information director, a museum information specialist, and 3 clerical assistants, and to provide travel and contractual service funds.

Exchange of Museum Professionals

The primary purpose of the Museum Act is to improve the standards of performance of museums as major forces in educational and cultural development. This can be accomplished best by providing museum directors and curators with opportunities to see the finest museum practices and programs at first hand and to consult with the most effective museum professionals. Exchanges of ideas about collections and the exhibition, interpretation, and conservation of museum objects provide fresh insights into the useful employment of museum resources and frequently stimulate innovations and new programs. Ideas not previously published may be discovered through visits to other museums and frequently result in substantial economies in collection management, security, and preservation. A priority increase of \$48,000 is requested to enable 16 museum professionals to spend an average period of four months of consultation and study at appropriate museums.

To conduct this program at a level necessary to produce fully effective results, an additional \$48,000 for 16 additional exchanges are required.

Specification of Increase

To employ 2 historians, 3 curators, 3 museum specialists, 2 exhibits specialists, 2 photographers, 11 technicians, 1 administrative officer, 7 secretaries, and 1 typist (\$261,000); personnel benefits (\$19,000); travel (\$13,000); printing and reproduction (\$4,000); other services (\$378,000); supplies and materials (\$31,000); and equipment (\$98,000); a total increase of 32 positions and \$804,000.

Conservation Analytical Laboratory

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship.....	3	\$31,000	3	\$45,000	4	\$108,000
Reference Collections.....	<u>6</u>	<u>43,000</u>	<u>6</u>	<u>67,000</u>	<u>13</u>	<u>127,000</u>
Total.....	9	\$74,000	9	\$112,000	17	\$235,000

The Conservation Analytical Laboratory performs original research in the science and techniques of the preservation and restoration of museum and art gallery objects. It conducts examination, analysis, treatment, and conservation of the National Collections comprised of more than 50 million cataloged specimens. Analysis of objects by advanced instrumentation is conducted to determine appropriate conservation procedures and to provide museum historians, archeologists, and scientists with basic information used in determining dates, history, attribution, and ancient production methods of objects under study. The Laboratory collects and disseminates information on conservation and analytical theories and practices for the use throughout the Smithsonian and in other institutions.

An increase of \$123,000 is required to vitalize a program which is seriously inadequate to support curatorial research needs and to prevent progressive deterioration of the Collections.

Research and Scholarship

A program of research in conservation of the Collections provides basic information and techniques pertinent to environmental control,

fumigation, cleaning, and other preservation methods. There are many areas of scientific analysis which are of great value to the museum community. These include the identification of microsamples of such materials as pigments, surface coatings, and the products of deterioration. A capability of providing non-destructive quantitative analysis is needed in order that valuable objects can be analyzed without removing samples. In order to conduct research in problems of conservation and analysis at a modest level, one additional position and supporting equipment, a total of \$63,000, would be desirable.

Reference Collections

Entire collections of significant and valuable historical objects and scientific specimens numbering hundreds of items are in need of cleaning, repair, and conservation treatment. Objects are received from excavations and by donation at a rate far exceeding the capability to analyze or to treat them adequately. Objects which have been inadequately preserved in the past are deteriorating toward conditions which will result in the need for costly restoration, if possible, or total loss. In particularly serious condition are objects made from wood, ceramics, and fabric. Three conservation specialists and a metallographer, and their equipment needs, are priority requirements; an increase of 4 positions and \$34,000.

To keep abreast of the current workload for conservation of the Collections, although not to attack the backlog of work, an additional increase of \$26,000 is required for 2 conservation technicians, a clerk-typist, and additional equipment.

Specification of Increase

To employ 5 conservators, 2 technicians, and 1 clerk-typist (\$54,000); personnel benefits (\$4,000); travel (\$1,000); other services (\$1,000); supplies and materials (\$5,000); and equipment (\$58,000); a total increase of 8 positions and \$123,000.

Office of Exhibits

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship . . .	2	\$25,000	2	\$25,000	4	\$81,000
Public Enlightenment	164	2,008,000	164	2,008,000	186	2,416,000
Total	166	\$2,033,000	166	\$2,033,000	190	\$2,497,000

The Office of Exhibits designs, produces, installs, modernizes, and maintains permanent exhibits in the Museum of Natural History and the Museum of History and Technology; prepares special temporary exhibits on important and timely subjects of art, history, and science; produces touring exhibits; provides exhibits for experimental neighborhood museums; and advises and assists with exhibits work and public events throughout the Smithsonian Institution.

An increase of \$464,000 is required to provide maintenance of permanent exhibits, develop the programs of traveling exhibits, and neighborhood museums; and develop new preparation and exhibition techniques.

Research and Scholarship

The Office of Exhibits is pioneering in the development and application of techniques and processes to improve exhibition effectiveness and to improve results or cut costs in the preparation of specimens for exhibition. Illustrative of these advances are freeze-dry taxidermy and the bacterial preparation of skeletal material. In order to continue research and innovation in the modernization of

techniques, a desirable increase of \$56,000 is required to employ 2 research assistants and to provide funds for additional travel, contractual planning and conduct of tests and evaluations, supplies, and electronics components and testing equipment.

Public Enlightenment

This program category should be considered in terms of its component activities.

Maintenance of Exhibits

During the past 12 years, new large exhibition halls, each containing up to 150 unit displays have been opened at the rate of more than four halls a year. By the end of fiscal year 1968 there will be 58 large halls open to the public. These exhibits contain hundreds of visitor-operated units. Many objects are displayed in the open to add to the visitor's pleasure and education. In the same period, attendance has increased by millions of visitors. Recently over 900,000 visitors were counted in one building in one month. The increase in numbers, quality, and complexity of the exhibits and the intense wear to which high concentrations of viewers subject them require that additional maintenance be given participation devices, audio systems, projectors, motors, and protective devices. This maintenance requirement far exceeds all former estimates. To provide the economy of preventative maintenance and to attack the backlog of needed repairs at the rate of 1,300 exhibits units a year, a rate estimated to keep abreast of requirements, a priority increase of \$105,000 is required for 10 museum technicians, contractual services, supplies, and equipment.

Traveling Exhibits

In more than 20 years' experience of circulating traveling exhibits of museum objects, the Smithsonian Institution has faced a rapidly increasing demand for more exhibits. School teachers and supervisors, community leaders, community colleges, and local museums across the United States agree that young people are inspired by experiences outside the classroom and that skillfully prepared exhibits of art, science, and history are effective stimuli of curiosity and the desire to learn. Within the classroom, firsthand association with authentic objects relating to the curriculum reinforces teaching from books.

Exhibits of the high quality of those shown in the Smithsonian Institution and in a few other large museums are not available locally to most of the public. The Institution has unique resources to experiment with and develop new techniques for the design and circulation of traveling exhibits. Smithsonian scientists, historians, and experienced exhibits designers are prepared to plan and supervise the preparation of outstanding traveling exhibits provided the necessary production staff and funds are made available. For example, plans include historical exhibits relating to events associated with the American Revolution. As a minimum, the Institution would produce eight traveling exhibitions for 72 showings across the nation.

To carry out this program, a priority increase of \$156,000 is required. This would provide for 12 exhibits designers and technicians; travel funds; transportation of things; services, supplies, and equipment.

Neighborhood Museums

A special type of museum extension activity is exemplified by the neighborhood museum pioneered by the Smithsonian with great success as an educational, cultural, and social force in the community. These museums require exhibition and museum innovations of a high order of originality and invention. To prepare experimental exhibits in support of neighborhood museums, a priority increase of \$30,000 is required for services, supplies, and equipment.

Development and Improvement of Exhibits

The preparation of an increasing number of special exhibits, establishment of new activities, such as the neighborhood museum, and assistance in the construction of temporary facilities for special events and demonstrations have forced the postponement of procurement and production of important elements of the permanent exhibition halls. To procure fixtures, cases, bases, and components of exhibits for the new hall of Physics, increases totaling \$18,000 are needed on a priority basis for services and equipment.

A further increase of \$99,000 would be used for the halls of Photography, Insects, Musical Instruments, Health, Wood Technology, and Armed Forces History. This would provide for printing of exhibition labels, architectural planning of hall renovations, erecting period shops, and components for audio, animations, and participation devices.

Specification of Increase

To employ 24 exhibits technicians, designers and specialists (\$171,000); personnel benefits (\$13,000); travel (\$2,000); transportation of things (\$11,000); printing and reproduction (\$8,000); other services (\$30,000); supplies and materials (\$50,000); and equipment (\$129,000); a total increase of 24 positions and \$464,000.

Office of the Registrar

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Estimate Pos.</u>	<u>Estimate Amount</u>
Reference Col- lections	8	\$80,000	8	\$75,000	10	\$85,000
Public Enlighten- ment	0	0	0	0	0	10,000
Administrative and Central Services . .	<u>16</u>	<u>168,000</u>	<u>18</u>	<u>167,000</u>	<u>19</u>	<u>195,000</u>
Total	24	\$248,000	26	\$242,000	29	\$290,000

The Office of the Registrar records all accessions and loans of objects and specimens acquired by the Museum of Natural History and the Museum of History and Technology. It furnishes essential correspondence services for responding to public inquiries relating to the work of the two museums and provides mail, messenger, and shipping services for the Institution.

A priority increase of \$48,000 is needed for direct shipping costs related to the collections; for insurance requirements of privately owned objects loaned to the Smithsonian; for processing public inquiries; and for mail and messenger operations.

Reference Collections

Interest in the Smithsonian's activities, its exhibitions, and in its reference collections is steadily increasing. A great many letters

are received asking about the Smithsonian's collections or requesting the Smithsonian to identify objects in the possession of members of the public. Two additional mail clerks are required to receive, record, and route public inquiries and to prepare final replies.

Public Enlightenment

In order to present to the public the most complete and authentic exhibits, the Smithsonian frequently augments its displays with significant historical and technological items borrowed from other institutions and private citizens. The emphasis by lenders on insurance protection requires the Smithsonian to provide the required coverage. A centralized insurance activity in the Office of the Registrar is the most economical and effective means of handling this increasingly important facet of museum exhibition. Funds are requested for this purpose.

Administrative and Central Services

The number of pieces of mail handled annually by the mail room has increased from under 700,000 in fiscal year 1963 to almost one million in fiscal year 1967. More mail pick-up and delivery points on and away from the Mall add to the problem of adequately servicing Smithsonian offices. Present manning of the mail room does not provide for the level of supervision needed for efficient operation of the mail system. A supervisory mail clerk is required.

Additional transportation funds are required to cover moving field equipment and returning collected specimens; obtaining objects for exhibition; lending natural history specimens for study by other institutions and scientists; as well as increases in shipping rates.

Specification of Increase

To employ 3 clerks (\$14,000); personnel benefits (\$1,000); transportation of things (\$23,000); and other services (\$10,000); a total increase of 3 positions and \$48,000.

MUSEUM OF HISTORY AND TECHNOLOGY

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Estimate Pos.</u>	<u>Amount</u>
Research and Scholarship	68	781,000	68	784,000	75	914,000
Reference Col- lections	38	453,000	38	439,000	46	626,000
Public Enlight- enment	<u>46</u>	<u>520,000</u>	<u>46</u>	<u>526,000</u>	<u>46</u>	<u>603,000</u>
Total	152	\$1,754,000	15	\$1,749,000	16	\$2,143,000

The Museum of History and Technology is the national museum of American cultural, civil, and military history, and of the history of science and technology. Its collections are studied by historians from all parts of the world and its staff of research historians publish papers on many aspects of American history and on cultural and technological developments. The curators plan authentic interpretive exhibits of objects from the collections. Thirty-two halls now open display educational exhibits of the physical sciences, engineering, transportation, armed forces history, American cultural history, underwater archeology, and costumes, among others. The exhibits are standards of excellence for historical displays and are visited by more than 5-1/2 million persons each year. The Museum conducts graduate courses in American studies in cooperation with a number of universities and it provides instruction for thousands of elementary school children each year.

An increase of \$394,000 is requested to perform and support required research and documentation of the collections; to plan and complete collections for new exhibition halls; to research, plan, and acquire collections for the observance of the Bicentennial of the American Revolution; and to coordinate and develop the Museum's program of historic archeology.

Research and Scholarship

Educators, scholars, and historians make increasing use of the research performed by the Museum's curators which is based on the unparalleled collections. Several collections, such as those of the original materials documenting the development of nuclear science, though they surpass those preserved anywhere else in the world, do not have a professional curator and are largely unexhibited and barely cataloged. The publication and cataloging of these collections are much in demand by historians of science. To document these collections and to stimulate publication on all collections, \$48,000 are required as top priority to employ a curator of nuclear energy, an editor-writer, and a museum specialist and pay for additional personnel benefits, travel, rental of duplicating equipment, supplies, and equipment.

An additional \$82,000 for the research and scholarship function of the Museum of History and Technology would provide funds: to employ a curator of applied physics and astronomy, research assistants in physical sciences, and musical instruments to relieve the division curators of routine work and assist them in their researches,

and an additional museum specialist-at-large to conduct photographic searches, identifications of common objects, and routine loan transactions; to contract for color photographs of the world-famous Syz collection of porcelain, a necessary step in the eventual documentation of the collection and publication of a long-awaited catalog of the collection; and to purchase an optical comparator for the identification of rare and valuable coins.

Reference Collections

Increasing numbers of historians individually and at museum conferences are using the collections to support their researches. The value of these collections for reference lies in their completeness, their selective quality, their complete and accurate documentation, and their logical organization and ready accessibility. One objective must be to amplify the historical record by seeking, selecting, and acquiring significant original materials to fill gaps in categories of early objects as well as to select and preserve the materials which will record recent developments in scores of disciplines.

A stronger effort must be made in historic archeology to excavate and salvage important objects from historic sites before they are irrevocably covered by construction or man-made lakes or otherwise lost. With the present staff of a single museum specialist in historic archeology and the occasional attention given by curators of other divisions, it is impossible to respond to opportunities or needs. In the last year little could be done to assist on requests

received from N. J. , Mass. , Md. , N. C. , and other states. To develop a strong capability in historic archeology and to assist the director in the development of historical collections, \$78,000 are required to employ an assistant director of the Museum of History and Technology, a curator of historic archeology, a secretary, and a clerk-typist, and for additional personnel benefits, travel, transportation of things, other services for installing a humidifier in collection storage areas, supplies, and equipment for historic archeology laboratory.

The Smithsonian's central role in the national celebration of the Bicentennial of the American Revolution requires a special effort to acquire objects of the Revolutionary period for touring exhibitions, research, and the Museum's special exhibits. Consultation with individual and institutional owners of material must be accelerated to acquire collections by loan, gift, and purchase to be ready for exhibits and events of the celebration. Great objects, though they may be expensive to acquire, are in the end the most economical exhibits. The continuing program of special exhibits commemorating the events leading to the Revolution also requires that objects be acquired soon. These exhibits include the Stamp Act, the Bill of Rights, the Townshend Act, the Opening of the West (1969), Daniel Boone (1969), the Boston Massacre (1970), and others. For the program for the Bicentennial, \$61,000 are required for travel, transportation of things, and the purchase of collections.

For the above requirements of highest priority a total of 4 positions and \$139,000 is required.

An additional \$48,000 would improve the management and presentation of the collections and make them more accessible for study, through the addition of 4 technicians for understaffed divisions and provision of necessary supplies and equipment.

Public Enlightenment

In 1969 the installation of exhibits in the Halls of Photography, Musical Instruments, and Armed Forces History will begin and the program of opening and improving exhibits will continue. An increase of \$24,000 is required to provide the exhibition models, dioramas, and replicas which are specified by the curators and procured to interpret the exhibited original objects. Included are photography models and sectioned instruments to illustrate the operation of shutters and meters, equipment for a teaching exhibition photographic processing laboratory, dioramas of military action for Armed Forces History, and a diorama of the driving of the golden spike a hundred years ago for Land Transportation.

The exceedingly popular concert demonstrations and exhibitions of early musical instruments require \$11,000 additional to end reliance upon volunteers and private grants and to engage artists of standing to rehearse and perform four concerts in 1969. These concerts play to overflow audiences and provide an additional dimension to the research and exhibition of early musical instruments.

The above priority increases total \$35,000.

A further increase of \$42,000 would permit the Museum to obtain photographs and historical apparatus to fill gaps in original materials to be exhibited in the Hall of Photography and to obtain original early instruments for the Hall of Musical Instruments and to extend the informative and enjoyable music concerts.

Specification of Increase

To employ 1 assistant director, 3 curators, 1 editor-writer, 1 museum specialist, 7 technicians, 1 secretary, and 1 typist (\$141,000); personnel benefits (\$11,000); travel (\$8,000); transportation of things (\$6,000); rent, communications, and utilities (\$3,000); other services (\$66,000); supplies and materials (\$6,000); and equipment (\$153,000); a total increase of 15 positions and \$394,000.

MUSEUM OF NATURAL HISTORY

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship...	100	\$1,534,000	104	\$1,533,000	138	\$2,157,000
Reference Col- lections	115	1,248,500	120	1,231,000	126	1,384,000
Public Enlight- enment	<u>38</u>	<u>438,500</u>	<u>39</u>	<u>392,000</u>	<u>39</u>	<u>392,000</u>
Total...	253	\$3,221,000	263	\$3,156,000	303	\$3,933,000

The Museum of Natural History is an international center for the natural sciences, maintaining the largest reference collections of scientific material and specimens in the nation, as well as a comprehensive scientific program of original research on man, plants, animals, rocks and minerals, and fossil organisms--their classification, distribution, and relationship to the environment. The reference collections and the resident scientists provide an important focal point for cooperative research and educational activities among Federal agencies, universities, and other scientific institutions. Its studies of living and fossil plants and animals provide critical data for problems of pollution, medicine, development of food sources, and earth sciences pursued by Federal agencies and private research groups. Through its exhibits and public activities it interprets botany, zoology, geology, and anthropology to the nation.

During the past fiscal year the number of publications produced by staff reached a record level. Figure 1 shows the rapidity of publication growth reflecting: 1) growth in staff; 2) increased productivity

through better utilization of scientific time. Notable accomplishments relating to the latter include the bettered ratio of supporting personnel to professional staff. This ratio is now just over 1:1, and a primary objective of the Museum of Natural History is to increase it to two support personnel for each scientist. Introduction of on-line computing and other modern scientific techniques and development of centralized laboratories reduce scientific time spent in technical level activities. Introduction of manuscript typing pools during fiscal year 1968 is expected to increase significantly the production of manuscripts (figure 2). The published research of the Museum of Natural History is one of the most highly regarded reference libraries in systematic biology and anthropology in the world. These references are used daily by scientists in Federal agencies in the conduct of their missions and by scholars throughout the world.

Accession rates of specimens increased during fiscal year 1967 to one of the highest annual levels in the history of the Museum of Natural History (figure 3). This influx of specimens to the National Collections represents: 1) increasing regard in the scientific community of the United States for the National Collections; 2) increased research activity in natural history; 3) collecting activities associated with the Federal oceanographic program. It is expected that this rate of accession will continue to increase as studies of environmental management and of pollution begin as national programs. The Museum of Natural History continues to serve as a national reference center in which specimens utilized by international science are deposited so that they may be available to all scientists. In this past year the Museum has undertaken, by request, to serve as the National Repository for

MUSEUM OF NATURAL HISTORY
 Number of Publications by Staff--Fiscal Years 1963 through 1967

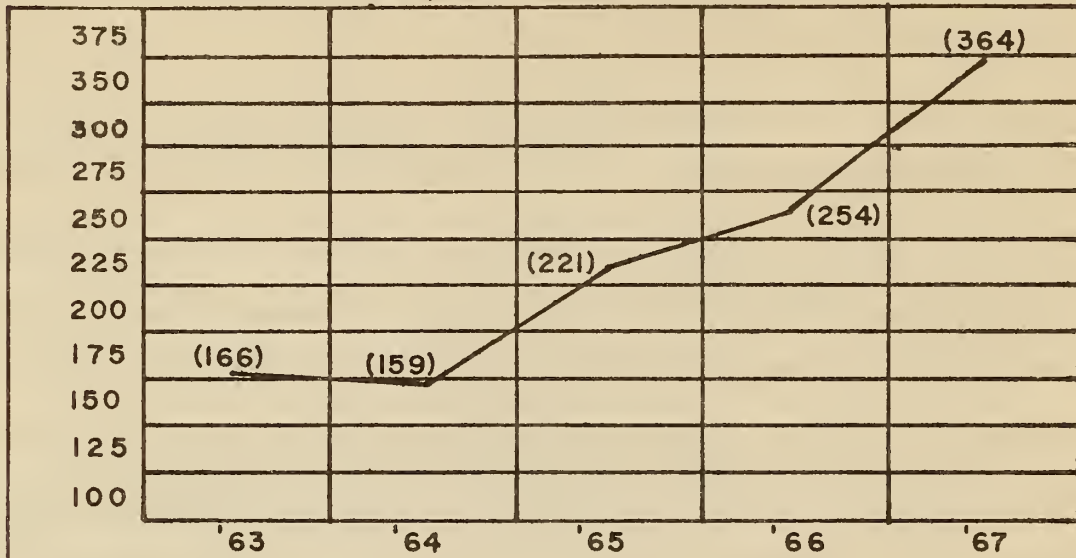


Figure 1

MUSEUM OF NATURAL HISTORY
 Number of Pages Published by Staff--Fiscal Years 1963 through 1967

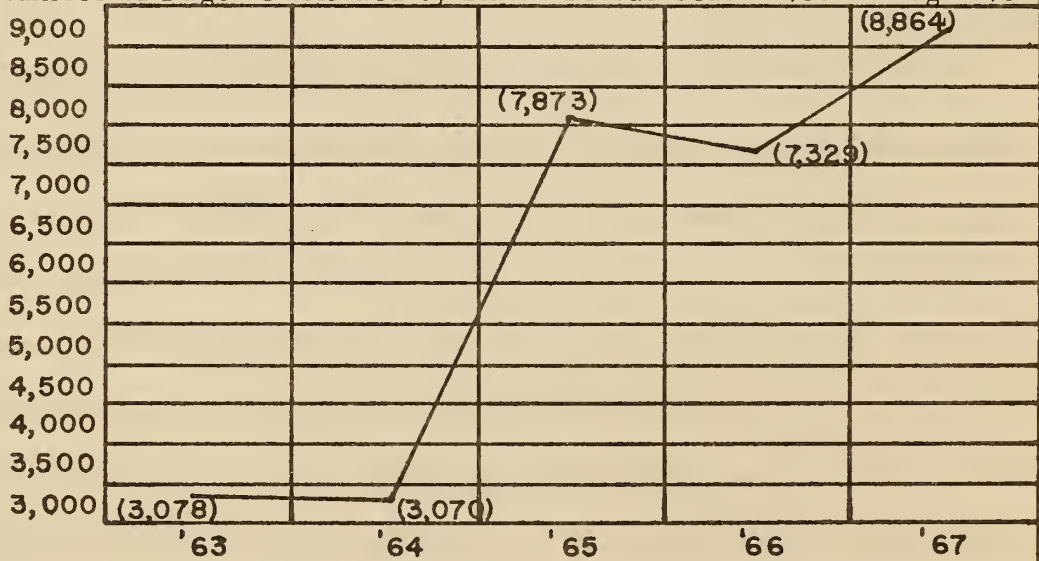


Figure 2

MUSEUM OF NATURAL HISTORY
 Accessions to the National Collection--Fiscal Years 1963 through 1967

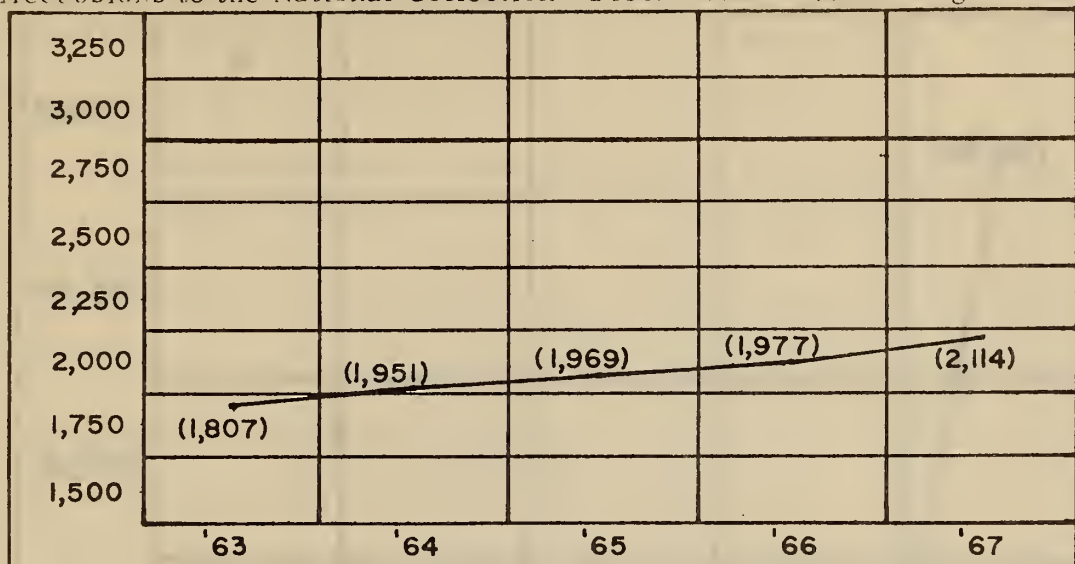


Figure 3

MUSEUM OF NATURAL HISTORY
 Loans to Other Organizations by the Museum--Fiscal Years 1963-1967

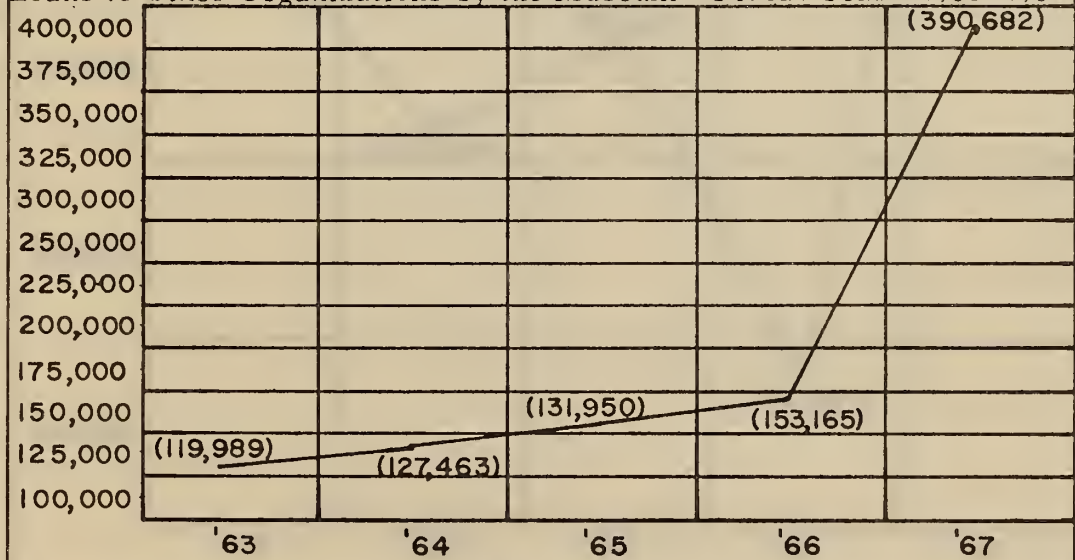


Figure 4

MUSEUM OF NATURAL HISTORY
Exchanges Between the Museum and Other Museums--Fiscal Years 1963-67



Figure 5

the International Reflectivity Standards of Ore Microscopy. This is only one of the many such roles played by the Museum.

As a national facility, the Museum has a responsibility to make its reference collections available to visiting scholars and to those persons who either cannot visit the Museum or who cannot complete study while at the Museum. Table 1 shows numbers of visitors to the scientific departments. The total number of visitors, 5,331, is an increase of almost 10% over the preceding year.

Figure 4 shows the increased loans of specimens to scientists during the last year. Exchanges of materials with other museums also increased during fiscal year 1967 (figure 5). Both activities require much manpower at both the professional and supporting level. As these activities can be expected to increase, additional supporting staff will be required. But also necessary is the introduction of improved methodologies such as the source-data automation equipment now utilized in some cataloging processes. Through this technique, almost doubled productivity has been achieved in the cataloging of incoming specimens. An experimental project on information storage and retrieval related to museum collections was commenced during fiscal year 1967 under a grant from the Office of Education. Although the primary thrust of this international experiment is toward making collections and collection-based data more accessible to users, it should have an impact upon the collection-management process and effect even greater savings of man-hours.

Perhaps most significant in the introduction of computer-processed, collection-based information will be the capability of increased service

Table 1

Summary of Scientific Visitors to the Museum of Natural History

<u>Department</u>	<u>Visitors for One Day</u>	<u>Visitors for More Than One Day</u>	<u>Total Visitors</u>
Anthropology	425	1,420	1,845
Botany	75	125	200
Entomology	185	221	406
Invertebrate Zoology	80	117	197
Mineral Sciences	250	986	1,236
Paleobiology	130	367	497
Vertebrate Zoology	170	790	960
	<hr/>	<hr/>	<hr/>
Total Visitors	1,315	4,016	5,331

to the scientific public. During fiscal year 1967, the staff of the Museum of Natural History responded to information requests from Federal agencies, universities, research institutes, individual scientists, schools, museums, governmental bodies, publishers, and others. Increased inquiries from Federal agencies indicate the importance of this function of the Museum of Natural History. Through its staff researchers which enhance the volume of information relative to individual specimens and through the accumulated knowledge of its total collections, the Museum is a fundamental resource to Federal agencies dealing with natural phenomena. The extent to which this is true is indicated by the variety of support other Federal agencies give to the Museum of Natural History.

To improve services, purchase computer time, and expand research activities an increase of 40 positions and \$777,000 is requested for fiscal year 1969.

Research and Scholarship

The research of the staff of the Museum of Natural History makes fundamental contributions to accumulated knowledge of the nation, enhances the value of the National Collections, assists Federal agencies in the conduct of their missions, contributes to research and educational activities of the nation's universities, and directly assists in the education of students from this nation and abroad. The Museum of Natural History is charged with the care of the reference collection of the nation. Only through a broad-based program of research can the quality of the collection, and the information it contains be that demanded by the researchers of the United States.

Priority increases requested for fiscal year 1969 are:

- a. To initiate an interdisciplinary activity in palynology (the study of pollen and spores); to support the research programs of Natural Sciences of the Tropics and North America, Ancient Technologies and Cultures, and Marine Biology; to expand the research program of Investigations of Earth History to include the studies of structural crystallography and igneous and metamorphic rocks; 3 professional, and 6 technicians, and \$165,000 are requested.
- b. To allow increased funding for travel in connection with field work and participation in scientific meetings, an additional \$10,000 are requested.
- c. To allow more efficient use of scientific personnel by providing them with project administrators, a total of 10 positions and \$76,000 is requested.
- d. To purchase computer time necessary for research projects including numerical taxonomy, statistical analyses, studies of population dynamics, analysis of collection and ecological data, and for data storage and retrieval projects including bibliographies, an increase of \$20,000 is requested.
- e. To complete or establish laboratory facilities (high temperature laboratory, histology laboratory for invertebrate zoology, bird preparation laboratory, acid preparation in vertebrate paleontology laboratory), photographic darkroom for Anthropology Archives, and renovation of foyer rooms for the education program, an increase of \$14,000 is requested.

f. To improve library facilities through increased acquisitions, binding of books, provision of a translation service, an increase of \$19,000 is requested. This is a priority increase of 19 positions and \$304,000.

Additional increases requested to improve the level of services and research support are:

- a. To provide greater support in research for the professional staff through increased illustrators and research assistants, 6 positions and \$39,000 are requested.
- b. To recatalog the anthropological library and for increased acquisitions in entomological and paleontological literature, \$73,000 are requested.
- c. To initiate studies of medusae (jellyfish), siphonaptera (fleas), and diptera (flies) and to provide supporting staff and facilities for these researches, 3 professionals, 6 technicians, and \$157,000 are requested.
- d. To equip and develop further laboratory, photographic and collection-storage facilities, \$31,000 are requested.
- e. To purchase additional computer time for staff research programs, \$20,000 are requested.

This is a total requested increase of 15 positions and \$320,000.

To permit an evaluation of how the requested increases apply to research programs a Summary of Activities in Research and Scholarship is presented. The following summary lists the subprogram categories under the Research Program and shows the distribution of funds.

MUSEUM OF NATURAL HISTORY

Summary of Activities in Research and Scholarship

Research and Scholarship in Science	<u>Actual</u>	<u>Estimate</u>	<u>Priority I</u>	<u>Priority I</u>
	Fiscal Year 1967	Fiscal Year 1968	Estimate Fiscal Year 1969	and II Estimate Fiscal Year 1969
1. Geophysics and Cosmochemistry .	\$81,700	\$71,900	\$79,900	\$88,900
2. Natural Science: Tropics	185,000	211,000	269,000	343,000
3. Natural Science: North America . .	283,700	277,800	316,800	394,800
4. Ancient Technologies and Cultures	35,400	22,900	50,900	73,900
5. Social Behavior in Man and Other Organisms	64,400	89,200	102,200	133,200
6. Studies of Living Systems	150,000	123,700	131,700	140,700
7. Marine Biology . . .	257,500	233,700	246,700	320,700
8. Investigations of Earth History . . .	182,600	149,200	270,200	281,200
9. Monographic Studies	<u>293,700</u>	<u>359,600</u>	<u>375,600</u>	<u>386,600</u>
Total	\$1,534,000	\$1,539,000	\$1,843,000	\$2,163,000

A further description of each of the subprogram categories follows. The amounts shown are total program amounts in fiscal year 1969 budget request.

1. Geophysics and Cosmochemistry \$88,900

The Museum of Natural History maintains the largest collection of meteorites in the Western World and, as a result, has become an international center for the study of these natural space probes. Its program of research is oriented toward the study of the chemistry of the solar system and thus toward an understanding of the solar system and its origin. Research is largely descriptive of the materials which have come to the collection and utilizes a variety of techniques to determine physical and chemical properties, elemental, and mineralogical relationships. To understand these latter relationships better, experimental geochemical studies have been started. This phase of the research will be further developed in an integrated program involving the Smithsonian's Astrophysical Observatory, research groups at various universities, and the National Aeronautics and Space Administration.

An Ad Hoc Review Committee recommended that this program be strengthened by the addition of a crystallographer. A crystallographer determines atomic structure of crystals utilizing techniques and equipment now in the Museum of Natural History and requires access to a wide variety of mineral specimens. Since the Museum of Natural History has the largest such collection in the world, it is appropriate to supplement the requirements of the program of meteorite studies with a scholar who will benefit this and other research programs.

Nine projects are included in this program. Five of these represent new projects to be commenced in 1969 following planned termination of 14 projects at the conclusion of fiscal year 1968.

2. Natural Science: Tropics \$343,000

Nowhere in the world are the complexities of plant and animal interrelationships more numerous, more intricate, and less understood than in the tropics. The ever-increasing exploitation of tropical regions adds a dimension of urgency to their investigation. The variety of ways in which man has adapted to the tropical environment and the results of his modification of the environment are the principal objectives of this program which has the highest priority within the Museum of Natural History.

Knowledge of the tropics is so scant that much of the research has been necessarily descriptive. This phase must continue to be emphasized, particularly as natural areas are being destroyed at an increasing rate. However, through development of research centers such as Guama (cooperatively with the Brazilian Government), studies of the interaction of flora, fauna, and environment are stimulated.

The large collections of South American artifacts, flora, and fauna present in the National Collections form a superb base in the United States for studies of the tropics. Through these studies can be developed a better understanding of the ways in which man and the natural fauna and flora can live together.

Under Priority II it is planned to add a professional dipterist (study of flies) and supporting staff, facilities, and equipment.

Forty-five projects are included in this program. Nine of these represent new projects to be commenced in fiscal year 1969 following the planned termination of seven projects at the conclusion of fiscal year 1968.

3. Natural Science: North America \$394,800

It is appropriate and imperative that the nation's Museum of Natural History engage in studies of our natural heritage in North America. Our changing environment, including man's response and adaptation to it, has long been a concern of our scientists. Progressive modification of the terrain and of floras and faunas occurring as man exploits his environment is documented in the collections of the Museum.

Today, as our population and economy develop at an accelerated pace, data relating to the rate of change in the ecology of North America has become more important. Several projects of particular significance attempt to draw together knowledge from all sources in single definitive works, thereby serving as documentation of change and as a basis for measuring it. They are:

1. Flora of North America. A joint Canadian-American project to document the vascular flora of the Continent. This research, involving scientists from all over the United States and Canada, will result in a projected five-volume, definitive work covering the only major area of the Northern Hemisphere for which such a flora does not exist or is not in progress.

The Smithsonian Institution has been active for many years in collecting and cataloging the flora of North America, dating back to studies of wild flowers at the turn of the century and to the botanical collections brought to the Smithsonian by Spencer Baird in 1850.

2. Handbook of North American Indians. A multivolume work updating all knowledge about North American Indians. The Smithsonian Institution has been collecting and preserving knowledge about American Indians since 1879, when Congress directed that all archives, records and materials relating to the Indian collected by the Geographical and Geological Surveys be turned over to the Smithsonian. With funds regularly appropriated for this purpose, John Wesley Powell established the Bureau of American Ethnology.

Other research projects are defined more narrowly but have the objective of defining the natural history of North America. Many of these researches have an element of urgency as habitats and sites are destroyed by encroaching civilization.

Under Priority II it is planned to add a professional siphonapterist (study of fleas) together with supporting staff and facilities.

Fifty-two projects are included in this program. Ten of these are new projects to be commenced in fiscal year 1969 following the planned termination of five projects in fiscal year 1968.

4. Ancient Technologies and Cultures \$73,900

This program involves the study of the manufacture of arts and crafts of prehistoric and historic, non-industrial societies under strict archeological protocols, and of the cultural patterns from which

our own civilization is descended. While some of this research follows traditional archeological techniques of excavation and description, the impact of modern scientific technology is making possible greater insights into older cultures. Use of metallographic techniques, for example, makes possible an understanding of the methods of smelting and tempering. In some cases this has led to re-discovery of lost techniques of use in our modern society. Knowledge of ancient technologies provides very direct information about early trade routes and cultural interchange. Knowledge of traditional craftsmanship now assumes a greater value, particularly in many of the emerging nations. These researches provide a stimulus to preservation as well as to recovery.

Nine projects are included in this program. None of the projects commenced or carried into fiscal year 1968 will be terminated and no new projects are planned.

5. Social Behavior in Man and Other Organisms\$133,200

Man's present complex social structures are not unique or unparalleled. Study of the social behavior of other species may suggest important insights into origins and causes of social behavior. Societies such as those of the insects and the more fundamental relationship of host and parasite have analogies in comparative studies of different human societies. Knowledge of the interactions between organisms has had considerable impact upon systematic biology and the study of phylogenies, as well as contributing toward solutions of ecological problems.

Increased requirements for refinement and definitiveness in systematics have led to increasing use of ethology. Traditional field observations by biologists, often downgraded as being observational and not experimental, are now recognized as a means of solving problems in systematics which have economic importance. Understanding these differences may become important in pollution studies as cryptic species demonstrate differing tolerance in ecological situations.

Seventeen research projects are included in this program. Three projects are planned for termination at the end of fiscal year 1968, but no new projects are planned for fiscal year 1969.

6. Studies of Living Systems\$140,700

Studies concerned with structures within organisms are grouped here. Included are researches on five structures of organisms (histology, electron microscopy, comparative anatomy), with growth and development (embryology, aging phenomena), and with structural adaptations and functional morphology. Together they represent investigations of the ways in which the parts of the living system, which is the organism, relate to the whole organism and its adaptations for life.

Because these studies are carried out in an environment of research upon whole animals, they serve to complement and strengthen traditional researches of the staff. Studies in this program have particular importance to the medical field since investigations in the simpler biological systems facilitate understanding of more complex

life. An example is a program in comparative anatomy of invertebrates closely allied with interests in the National Institutes of Health. Researches in this program also form a bridge between the systematic-ecologic research of staff with the molecular level studies of the Radiation Biology Laboratory and physiological work in universities.

Twenty-three projects are included in this program. Four research projects were terminated during fiscal year 1968. No new projects are planned for commencement during fiscal year 1969.

7. Marine Biology\$320,700

The national goals in oceanography, and in particular the Federal program in oceanography, have given great impetus to studies of marine biology. Because marine organisms are less well known than any group except perhaps the insects, studies are primarily directed toward understanding systematic relationships and secondarily toward revealing distribution patterns and their relationship to ecology. Marine animals are distributed without regard for man's artificial boundaries, and the studies in marine biology, as a result, span the world. Through the long interest of the Smithsonian Institution in marine biology, beginning with collections made by the United States Fish Commission steamer "Albatross" (1883 to 1923), and continuing through the years with excellent rapport with the marine biological community, unparalleled collections have been made. Therefore, research of the highest quality is possible and has resulted in the Museum of Natural History being a principal center for studies of marine biology.

Under Priority II it is planned to add a coelenterate biologist to study jellyfish and their allies, together with supporting staff, facilities, and equipment.

Fifty-one projects are included in this program. Twelve were terminated during fiscal year 1968 and three new ones are planned for fiscal year 1969.

8. Investigations of Earth History \$281,200

Research toward elucidating the history of the earth formerly concentrated in the field of paleontology--the evolution of life. A broadened program of research of the last few years results from incorporating physical as well as biological evidences. New technology applied to older problems also yields important results permitting broader interpretations. Important among these is the application of computer techniques to analysis of fossil populations, allowing an understanding for the first time of the dynamics involved in evolution at the population level. Studies of modern sediments provide insights to mechanisms which affected those populations now seen as fossils and permit ecological interpretations of the sediments which enclose them. Going beyond traditional stratigraphic paleontology concerned with discerning evolutionary patterns which permit dating sequences of rock formations, these studies supplement the researches of the United States Geological Survey. Paleoecological data, as with its modern counterpart, will make possible better understanding of the development of the earth and the environment it provides.

A petrologist studies rocks in relation to their physical and chemical history and serves to elucidate earth history. Study of marine rocks of igneous and metamorphic origin relates to the Museum's interest in marine geology in the program "Studies of Earth History." The national program in oceanography has resulted in large new collections of oceanic rock samples for which the Museum receives many requests for analysis. This additional position was given a high priority by an advisory ad hoc committee in February 1967.

Twenty-three projects are included in this program. Five were terminated during fiscal year 1968 but no new projects are planned for fiscal year 1969.

9. Monographic Studies \$386,000

Museums have traditionally assumed the role of characterizing and describing the diversity of life on earth and of producing the scholarly works which catalog and describe the specimens in their collections. These works are fundamental to research on all forms of life and to studies of the interrelationships between living things and the physical environment.

Ability to differentiate between species is an essential first step in any research. The importance of this pervades research in the fields of medicine, epidemiology, oceanography, agriculture, etc., and is of great importance in civil and military planning, in pollution studies, and in most factors of our daily lives. Museums, through publication of monographic works summarizing known elements of the biota, are the basic source of this knowledge because

they have the collections upon which such research is based. Monographic studies, as a program, include long-range research dedicated to the production of scholarly work upon such disparate items as Korean material culture, Old World burrowing bugs, cyprinellid minnows, or fossil oysters of North America. Each of these works will stand for a period of time as a landmark, a plateau upon which further knowledge can be built.

Twenty-five projects are included in this program. Twelve projects were terminated during fiscal year 1968 and two new ones are planned for fiscal year 1969.

Reference Collections

An increase of \$153,000 and 6 positions are requested for fiscal year 1969 in support of the National Collections. This includes a priority increase of \$10,000 to provide funds for replacement of curatorial supplies and obsolete equipment. This increase is minimal and barely meets costs of collection-based activities involving increased scientific visitor load and increased utilization of the reference collections. An additional \$10,000 are requested as a lower priority but still required to replace obsolete equipment. The total request also includes 6 technical positions and \$38,000 to provide better curation for the care and preservation of the National Collections and to permit more efficient use of professional staff. It also includes \$85,000 to purchase steel shelving to complete alcohol specimen storage stacks for the Department of Invertebrate Zoology.

Specification of Increase

To provide for 40 positions (\$280,000); personnel benefits (\$21,000); travel (\$20,000); rent, communications, and utilities (\$30,000); other services (\$236,000); supplies and materials (\$40,000); and equipment (\$150,000); a total of 40 positions and \$777,000.

NATIONAL AIR AND SPACE MUSEUM

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Estimate Amount</u>
Research and Scholarship	5	\$80,000	5	\$85,000	11	\$166,000
Reference Col- lections	13	173,000	17	175,000	24	373,000
Public Enlighten- ment	<u>19</u>	<u>201,000</u>	<u>19</u>	<u>208,000</u>	<u>25</u>	<u>309,000</u>
Total	37	\$454,000	41	\$468,000	60	\$848,000

The National Air and Space Museum is the nation's center for exhibition, education, and research in the history of air and space-flight and for public instruction in the history and principles of flight. Scholars, writers, historians, engineers, and inventors employ the Museum's unique collections and reference library and the exhibits are visited by millions of visitors a year.

An increase of 19 positions and \$380,000 is requested for fiscal year 1969.

Research and Scholarship

The National Air and Space Museum has the world's greatest collection of objects related to aviation and space flight, representing an unparalleled resource for the development of a center for research to participate in and to support scholarly investigations in aviation and aerospace history; flight science and technology; the contributions of flight to the economy and culture of the United States; and the pioneering

efforts of early aviators and astronauts. This research effort ultimately will produce publications, lectures, seminars, and other results for the information and education of the general public, students, scholars, and historians. To supplement the present inadequate staff, 2 curators and 4 assistants are requested. This is an increase of 6 positions and \$81,000.

Reference Collections

The National Air and Space Museum is responsible for acquiring, preserving, and documenting historically and technologically important objects and records resulting from air and space research, development, and operations. Under the National Aeronautics and Space Administration Artifacts Program, being initiated in fiscal year 1968 and funded by the National Aeronautics and Space Administration for this year only, some 30 manned spacecraft, 20 scientific satellites and space probes, plus hundreds of related items, including rocket motors and simulators, will come into the National Air and Space Museum's possession. These objects will require transportation, storage, and preservation, distribution, display, and interpretation well beyond the present National Air and Space Museum's physical and fiscal capabilities. Maximum use and educational impact of these collections are planned by loans to museums and other centers of exhibition and research throughout the country. To fulfill its assigned responsibility, a priority increase of 3 positions and \$150,000 is requested for this new program.

Action must be taken to reduce to usable condition the tons of unindexed documentation in the form of books, pamphlets, reports, letters, photographs, films, recordings, and drawings. The current input exceeds present capabilities to organize this material properly. Requests for information now number several thousand a year. To meet these needs, a study of modern information storage and retrieval systems must be made and a suitable system designed and evaluated for future National Air and Space Museum use. As a minimum effort to prevent a further accumulation of this backlog, a priority increase of 2 positions and \$24,000 is requested. An additional increase of 2 positions is requested to maintain an adequate level of support for this program.

Public Enlightenment

Drawing upon the National Collections and with research support from the curatorial staff, the National Air and Space Museum must produce exhibits and displays which convey to various museum audiences stimulating and meaningful concepts of the past, present, and future of aeronautics. With the single exception of the Aerospace Art Galleries in the Arts and Industries building, all National Air and Space Museum exhibits are outmoded, poorly housed, unexciting, or deteriorating rapidly under heavy visitor wear and tear. Rapid developments and innovations in exhibition and display techniques and concepts of sensory communication offer the National Air and Space Museum an opportunity to experiment with, test, and evaluate

educational exhibits in air and space history, science, and technology. The public areas of the Arts and Industries, and Air and Space buildings can serve as an unparalleled laboratory for these tests. Successful exhibits can serve as prototypes for the planned National Air and Space Museum building or can be transported themselves to the new building when available. A priority increase of 2 positions and \$51,000 is requested as a minimum to initiate this effort. An additional 4 positions and \$50,000 are requested to maintain an acceptable level of service for exhibits in the existing limited facilities until the new building is constructed.

Specification of Increase

To provide for 2 curators, 4 museum specialists, 4 research assistants, 5 museum technicians, and 4 typist-secretaries (\$145,000); personnel benefits (\$11,000); travel (\$15,000); transportation of things (\$21,000); other services (\$103,000); supplies and materials (\$35,000); and equipment (\$50,000); a total increase of 19 positions and \$380,000.

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship ...	1	\$20,000	1	\$20,000	3	\$46,000
Reference Col- lections	4	70,000	4	70,000	7	88,000
Public Enlight- enment	<u>2</u>	<u>35,000</u>	<u>2</u>	<u>37,000</u>	<u>4</u>	<u>227,000</u>
Total.....	7	\$125,000	7	\$127,000	14	\$361,000

The National Armed Forces Museum Advisory Board, as required by Public Law 89-186, has as its principal objective the providing of advice and assistance to the Board of Regents of the Smithsonian Institution on matters concerned with portraying the valor and personal sacrifice of the members of the armed forces and their extensive peacetime contributions. The Advisory Board makes recommendations concerning lands and buildings suitable for the proposed National Armed Forces Museum Park; conducts planning with regard to the concept of the museum park, especially its role in the celebration of the Bicentennial of the American Revolution; performs research on the contributions of the armed forces; and collects and preserves materials for exhibit and for study.

An increase of \$234,000 is requested to enable the National Armed Forces Museum Advisory Board to carry out the provisions of its act of establishment and to assist the Board of Regents in planning for a museum park.

Research and Scholarship

The proposed National Armed Forces Museum Park will portray the contributions of the armed forces to national development, with special emphasis on their peacetime contributions to the advancement of human knowledge in such fields as science, engineering, exploration, and many others. The proposed museum park also will be provided with a study center for scholarly research into the meaning of war and its effect on civilization.

The Smithsonian Institution must seek fresh and innovative approaches that will encourage creative scholarship in military history; provide broad appreciation of the issues raised by military security in a democratic society; and relate the Armed Forces Museum in a dynamic way with current national trends and contemporary thinking, and with existing Smithsonian programs.

Study and survey efforts already initiated must be accelerated to locate and measure available resources in the field of American military history. The limited Advisory Board staff must be augmented to meet this need. A priority requirement is for \$16,000 to employ 1 stenographer and to make available adequate funds to conduct studies and surveys.

An additional request of \$10,000 to employ a staff historian to support this planning would help to produce these studies on a more timely basis.

Reference Collections

The National Armed Forces Museum Advisory Board will require the services of a full-time director in fiscal year 1969 in order to provide continuity of planning and program direction. A priority need is an increase of 1 position and \$8,000 to fund the partial year costs of this important position.

Since its inception the National Armed Forces Museum Advisory Board has been offered specimens of significant historical value that had to be accepted immediately or be lost forever. The Board is concerned with maintaining this growing collection, much of which, because of size, is stored out-of-doors where it is subject to deterioration from the elements.

An increase of \$10,000 is necessary to employ 2 museum aids to make periodic inspections and to perform cleaning, sandblasting, spot painting, and other forms of preventive maintenance.

Public Enlightenment

The Smithsonian Institution has been called upon to plan and construct significant exhibits for the forthcoming commemoration of the Bicentennial of the American Revolution. To provide for planning and the timely execution of appropriate military exhibits, it is essential that the National Armed Forces Museum Advisory Board acquire personnel to give full time to exhibits planning.

Salvage operations have been undertaken by the Smithsonian Institution and the United States Navy to raise the Civil War monitor U.S.S. Tecumseh, sunk in the Battle of Mobile Bay. The Tecumseh

is of major historical significance and will be displayed in the proposed Park.

By the beginning of fiscal year 1969 it is expected that the Tecumseh salvage project will be carried on with major assistance from the Office of the Supervisor of Salvage, United States Navy, and that a coffer dam will have been erected around the sunken vessel to permit the removal of its contents and further steps to save the ship.

The Smithsonian must be prepared to undertake the removal of all artifacts without delay because their exposure to air will hasten deterioration. Funding for cleaning of the vessel's interior; the removal, identifying, and cataloging of all artifacts; and temporary storage and preliminary work to insure the artifacts' preservation is required.

A priority increase of \$144,000 is required to hire an exhibits planner and a stenographer to initiate an exhibits program and to cover expenses associated with the salvage and preservation of the U.S.S. Tecumseh and its contents.

A special exhibit concerning the Tecumseh would be appropriate in order to inform the public of the ship's historical and technological importance; of the progress being made toward Her recovery; and of Her future role as a unique exhibit in the proposed National Armed Forces Museum Park.

During fiscal year 1969 the National Armed Forces Museum Advisory Board plans to continue an annual series of art exhibits designed to document and dramatize the contributions made by the armed

forces to national development. The exhibit proposed for fiscal year 1969, "The Role of the Armed Forces in Advancing the Frontier," will require the collaboration of numerous institutions, historical societies, galleries, and individual collectors about the United States in order to assemble a truly significant collection. Funds will be needed to cover the costs of packing, shipping, and insuring, where necessary, art works obtained on loan for use in the exhibit.

With a view to increasing public understanding of the contributions of the armed forces to American society and culture, and of the issues raised by military security in a democratic society, the National Armed Forces Museum Advisory Board plans to sponsor a series of lectures by recognized historians and by distinguished members of the armed forces who have participated in significant events or undertakings. These lectures ultimately would be collected and published by the Smithsonian Institution as part of the National Armed Forces Museum program. Two lectures are planned for fiscal year 1969.

An increase of \$46,000 is required for the special Tecumseh exhibit, the art exhibit, and the lecture series.

Specification of Increase

To employ a director, 1 exhibits designer, 1 historian, 2 stenographers, and 2 museum aids (\$55,000); personnel benefits (\$4,000); travel (\$7,000); transportation of things (\$12,000); other services (\$135,000); supplies and materials (\$2,000); and equipment (\$19,000); a total increase of 7 positions and \$234,000.

FREER GALLERY OF ART

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Reference Collections	5	\$34,000	6	\$38,000	8	\$62,000

The Freer Gallery of Art preserves and exhibits one of the outstanding collections of oriental art in the world. It furthers scholarship in oriental art history and promotes studies relative to the collections, thus contributing to the increase of knowledge of the artistic achievements of Near and Far Eastern civilizations.

An increase of \$24,000 is necessary to alleviate deficiencies in supporting staff, equipment, and other services.

The Technical Laboratory, which is entrusted with the analysis and preservation of objects in the collection, has gained an international reputation for museum conservation. The laboratory is receiving an increasing number of requests to advise on historic conservation programs of the International Council of Museums, the International Institute of Conservation, and the UNESCO. To meet this correspondence workload and to assist in the keeping of a conservation documentation center, a secretary is required.

Research conducted by members of the scholarly staff includes the reading and translation of publications in Chinese and Japanese. Inscriptions in these languages are also received from the general public with requests for translation. All oriental books and periodicals received by the Library must be provided with catalog cards in translation. The volume of this work is more than the scholarly staff can handle. A full-time translator of Chinese and Japanese is needed.

Modest funding is required for essential supplies and materials and to replace worn out equipment used in the preparation of exhibits.

Two positions and \$21,000 are required to meet the above priority needs.

Members of the professional staff and students working at the Gallery on fellowship and intern programs require copies of documents, records, scholarly articles, and books for use in their research. Use of a photocopier would be economical and efficient. A further increase of \$3,000 would provide funds for rental and supplies.

Specification of Increase

To employ 1 secretary and 1 translator (\$14,000); personnel benefits (\$1,000); rents, communications, and utilities (\$2,000); supplies and materials (\$5,000); equipment (\$2,000); a total increase of 2 positions and \$24,000.

NATIONAL COLLECTION OF FINE ARTS

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship ...	11	\$96,000	15	\$131,000	23	\$213,000
Reference Col- lections	8	116,000	11	188,000	15	311,000
Public Enlight- enment	<u>26</u>	<u>465,000</u>	<u>31</u>	<u>604,000</u>	<u>45</u>	<u>977,000</u>
Total	45	\$677,000	57	\$923,000	83	\$1,501,000

The National Collection of Fine Arts, the first gallery of art established by the national Government, is dedicated to championing American creative genius, past and present, in the field of fine arts. It stimulates national pride in American cultural achievements by programs of exhibitions, lectures, and publications which develop public awareness and appreciation of this heritage. The international standing of American art is being increased gradually by United States participation (organized by the National Collection of Fine Arts) in major international art exhibitions and through extensive circulating of American art abroad. Continuous encouragement to living American artists is provided by inclusion of their work in frequent, rotating exhibitions having large public audiences, and in instances of special merit, by the inclusion and display of their work in the National Collection of Fine Arts permanent collection. These activities encourage American citizens to donate art treasures of national significance to their country in order that the general public may benefit

and that the works may be preserved for posterity through regular care and timely conservation.

The National Collection of Fine Arts recognizes that in providing the fine exhibition and service facilities in the newly renovated Fine Arts and Portrait Galleries building (to be opened to the public in May 1968) Congress has mandated the National Collection to pursue vigorously the objectives assigned in its founding Act: to develop appreciation of art, both past and present; to encourage contemporary creative effort; and to provide a safe repository for art belonging to the United States Government.

Not only is the history of American art and the full scope of contemporary achievement to be presented by representative works of art on exhibition, but evidence of how the artists thought and worked is to be assembled and made available for study in the new national art research and art education center for which space has been provided. Specialized programs of art at other locations such as those of the International Art Program in foreign countries, the Renwick Gallery (Wash., D. C.), and the Cooper Union Museum (N. Y. City) are also responsibilities of the National Collection of Fine Arts and contribute to the attainment of the overall national objectives.

An increase totaling \$578,000 is requested, including \$313,000 for the National Collection of Fine Arts, \$122,000 for the International Art Program, \$86,000 for the Renwick Gallery, and \$57,000 for Smithsonian Institution support of the Cooper Union Museum. Of this total increase, \$342,000 is for priority needs, primarily related to

basic National Collection of Fine Arts programs and services in the Fine Arts and Portrait Galleries building. An additional \$236,000 would bring all programs to levels fully responsive to national and international needs.

Research and Scholarship

The National Collection of Fine Arts has on its staff several recognized authorities in the fine arts field capable of performing scholarly research in American arts and crafts and of contributing to the educational growth of our nation by producing much needed publications for the teaching staffs of secondary schools and colleges, many in areas remote to the large art centers of the United States. In addition there are independent experts capable of performing similar work. Both groups are provided a strong incentive to study the collections and produce publications based upon them by the excellent physical environment of the new building.

All of these experts, however, are restricted in performing this service at the present time by two major limitations. The first is the lack of thorough documentation of art objects already in the National Collection of Fine Arts' possession; the second is the inaccessibility of the basic research material scattered in many locations throughout the United States.

In order to overcome the first limitation, 5 new support personnel are needed on the staff: a curator of decorative arts to evaluate and catalog objects which, due to the lack of trained personnel, have not been processed for display or reference; 1 research assistant each

in the departments of Contemporary Art and of Prints and Drawings to perform on a regular basis similar tasks now done sporadically by interns and occasional contract personnel; and a museum technician with secretary to form a curatorial support office to relieve research and curatorial offices of routine administrative tasks and to coordinate activities common to all of them. This is a priority request for 5 positions with related services, supplies, and equipment totaling \$62,000.

The National Collection of Fine Arts serves the General Services Administration and other agencies as a repository for Government-owned art. It also is engaged in locating and recording the condition of Government-owned art displayed in Federal offices in Washington and elsewhere. Appropriate repair and restoration are provided as needed. As a result of this program, several hundred paintings are being identified and labelled so that loss of these works of art through theft or deterioration is minimized. In addition, numerous Government-owned paintings have been deposited in the collection in recent years. These are valuable for public display in continuing and rotating exhibits, for lending to Government offices for educational purposes, and for graduate research work. The need is great to regularize this assistance in an Office of Government Art within the National Collection of Fine Arts. This additional level of support would require 3 positions and \$20,000.

Reference Collections

The second limitation noted above, that of the wide scattering of related research material, such as works of art, publications, and archival documentation, throughout the United States, can gradually be rectified by the National Collection of Fine Arts. A significant start is necessary and achievable this year by a program of acquisition of original or microfilmed archival material (\$9,000), the purchase of art publications for the library (\$12,000), and the acquisition of paintings (\$13,000). The purchase of selected paintings to fill gaps in historic chronology will increase the research value of those already possessed. The amount requested would permit the acquisition of some key works still available at modest prices in a market which now ranges upward to several hundred thousand dollars for one American painting. Also, judicious purchases of contemporary art made early in an artist's career, before general acceptance pushes prices almost beyond reach, can result in substantial future savings.

The addition of 1 support person to each of the 4 research service offices, the library, archives office, photographic laboratory, and conservation laboratory, is needed to achieve a normal level of services to the public through full use of the new facilities and equipment provided. These research services offices receive, prepare, and assimilate new material for use by scholars, students, and others.

A priority increase of \$67,000 will provide the 4 positions, the funding of acquisitions, and other essential costs of the above activities.

A supplemental increment of support in the amount of \$56,000 at this time would add items vitally needed in a functional reference base (\$37,000 for additional library, archives, and painting acquisitions in the Fine Arts and Portrait Galleries building; permanent collection crafts items for Renwick Gallery, \$12,000; and conservation at the Cooper Union Museum, \$7,000).

Public Enlightenment

It is through the program of first-quality exhibitions and concurrent educational activities that the National Collection of Fine Arts will make its greatest impact upon the individual citizen in the United States and abroad. Here is the opportunity to expose millions of Americans, who live in or visit Washington (Fine Arts and Portrait Galleries building and the Renwick Gallery) and New York (Cooper Union Museum), and hundreds of thousands of people overseas (International Art Program), to American creative achievements in painting, graphics, sculpture, decorative arts, and the crafts. The interest generated by the exhibitions provide a receptive audience for concurrent educational programs designed to increase individual appreciation, understanding, and recognition of American art.

Since the largest of these audiences will be visiting the National Collection of Fine Arts galleries, opening in the Fine Arts and Portrait Galleries building in May 1968, it is here that a major effort will earn the greatest dividends. The new space provided by Congress will permit three times as many more concurrent changing exhibitions to be shown than were possible in the past. Instead of being limited to

successive displays in two galleries, the related fields of art-- painting, graphics, sculpture, decorative arts and crafts--may be exhibited simultaneously in six new galleries. In addition, continuous displays of items from the permanent collections are now possible in rooms especially designed for this purpose. Three new exhibits staff members to handle the increased work and 2 education personnel are needed to make this related program an effective one. It is further proposed to bridge the gap between curatorial specialization and interpretation for public benefit and understanding by reinforcing the work of the education office with arrangements for recognized art critics and art historians to prepare guides, critical evaluations, and other educational material.

As a priority request, 5 positions and \$71,000 are required to support this National Collection of Fine Arts program in the Fine Arts and Portrait Galleries building.

The International Art Program creates awareness and respect in individuals of foreign countries for the fine arts achievements of American artists by its program of circulating exhibitions of American art abroad and its management of United States participation in major international art exhibitions in Venice, Sao Paulo, Brazil, and other locations. These activities also create a climate for the lending by foreign governments of their country's art treasures to American museums. It is in the public interest that this climate of reciprocity be maintained. More adequate on-the-spot overseas supervision of the the handling of art objects borrowed from private owners in the United

States requires a priority increase of 2 persons to the International Art Program staff; \$22,000 will cover salaries and provide funds to meet increased costs of shipping.

The Renwick Gallery, located next to Blair House, is to be used as a showcase for American arts, crafts, and design and will display temporary, special exhibits of the arts of foreign countries, particularly when a dignitary of a country is residing in Blair House as a guest of the President. The present accelerated efforts to ready the physical structure for opening to the public require concurrent effort by a nucleus staff to provide outstanding exhibits for the museum. This staff should select and acquire basic equipment and furnishings; seek out and obtain through gifts and purchase a basic crafts and design collection; and initiate work on an exhibition program including obtaining commitments from potential donors and lenders of art. A director of administration, an assistant curator for exhibits, a museum technician, and a clerical assistant are the basic personnel required. Four positions and \$75,000 is a priority request of funds needed to support this important program.

The Cooper Union Museum for the Arts of Decoration, located in New York City, consists of a major assemblage of decorative arts material numbering close to 100,000 objects of textiles, drawings, prints, metalwork, furniture, ceramics, and glass and supported by a highly specialized research library of 15,000 volumes including a superb rare book section. The museum's collections, exhibitions, and research facilities have made it a resource of national significance

in the study and improvement of design. Increasing financial problems have forced upon the Cooper Union trustees the decision to discontinue the Museum. Recognizing that the character and reference value of the collection would be destroyed by this dispersal, the Regents of the Smithsonian Institution have approved the transfer of the Cooper Union Museum to the Smithsonian since its purposes coincide with the statutory obligations of the National Collection of Fine Arts in the field of the decorative arts. Local (N. Y.) financial support for the Museum has been assured for at least an initial period of three years in the amount of \$200, 000 to \$300, 000 each year. This funding will keep the museum open and its collections intact and will pay most personnel costs. It will not provide for necessary conservation or for a more active program for public and research use of the collections. To meet these needs, it is highly desirable that the Smithsonian Institution provide for an essential top staff member and other funds in support of preservation and maintenance of the collections and the preparation of exhibits. One position and \$45, 000 are required to meet priority needs.

The foregoing paragraphs highlight the most imperative of this year's needs of the National Collection of Fine Arts. These are of special importance since they represent predominantly the increased activity accompanying the first full year of public use of the Fine Arts and Portrait Galleries building. Included is provision for the completion and opening to the public of the last six (of a total of 16) large indoor galleries which were delayed by fund limitation in fiscal

year 1968. The final major project, the outdoor sculpture court, because of the need for long-range planning, is being tentatively scheduled for completion during fiscal year 1970.

The following additional requirements of the exhibition program deserve serious consideration:

- The size and quality of the additional exhibitions at the Fine Arts and Portrait Galleries building and their accompanying educational program will be substantially limited unless added funds in the amount of \$55,000 are made available.
- The sum of \$100,000 is required to permit the International Art Program to assemble and circulate ten additional exhibitions of American art abroad. This would raise the program to the level of support provided by the United States Information Agency prior to assumption of responsibility by the Smithsonian Institution. One curatorial assistant and a supporting clerk-typist are included in this total.
- \$5,000 toward the expenses of developing a more active program of exhibitions for the public at the Cooper Union Museum would be particularly valuable this year.

This supplemental request for the exhibits program of the National Collection of Fine Arts in the Fine Arts and Portrait Galleries building and overseas, and the Cooper Union Museum in N. Y. amounts to 2 positions and \$160,000.

Specification of Increase

To employ 1 museum administrator, 6 curators, 1 exhibits specialist, 1 manager of traveling exhibitions, 2 research assistants, 5 museum technicians, 1 photographer, 1 library assistant, and 8 secretaries and clerks (\$159,000); personnel benefits (\$12,000); travel (\$13,000); transportation (\$42,000); other services (\$116,000); supplies and materials (\$12,000); and equipment including library, archival, and reference collection materials (\$224,000); a total increase of 26 positions and \$578,000.

NATIONAL PORTRAIT GALLERY

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship ...	6	\$150,000	7	\$290,000	9	\$301,000
Reference Col- lections	11	264,000	14	390,000	27	534,000
Public Enlight- enment	<u>2</u>	<u>35,000</u>	<u>6</u>	<u>86,000</u>	<u>9</u>	<u>115,000</u>
Total....	19	\$449,000	27	\$766,000	45	\$950,000

The National Portrait Gallery collects exhibits and documents portraits of persons who have made significant contributions to the history, development, and culture of the United States. This program will be fully presented to the public with the opening of the Gallery in September 1968 in the recently remodeled Fine Arts and Portrait Galleries building. This gallery, the only such institution in the United States, has the potential to become one of the world's major galleries of portraiture.

An increase of \$184,000 is requested to provide supporting assistants for the research and reference facilities; to prepare the National Union Catalog of Portraits; to acquire portraits for the permanent collection; and to plan and execute special and temporary exhibitions in the new building.

Research and Scholarship

The National Portrait Gallery serves the scholarly community as a national reference bureau of portraiture. As such, biographers

and historians rely upon it as an authoritative point of reference in the authentication, identification, and documentation of portraits. These are the aims of the Gallery's research program. An increase of subprofessional assistants is sought to work in support of curators and visiting scholars by preparing documentary records and searching out biographical information. This is a priority request for 2 positions and \$11,000.

Reference Collections

The Gallery's opening will result in a stream of visitors seeking to study the reference collections of portraits, to consult photograph and other reference files, and to have access to the growing body of documentation on American portraiture. Three positions are requested to enable the Gallery to meet such requests; a clerk-typist, a photographer, and a stack attendant. A clerk-typist is requested also for the conservation laboratory, which will be confronted with expanded demands for treatment and preservation. This is a priority request for 4 positions and \$23,000.

The Gallery is preparing a National Union Catalog of Portraits, undertaken as a service to scholarship, but with the awareness that this body of information will contribute greatly to the growth of the national portrait collection, as a guide to the Institution's search for new acquisitions and to permit inquiries to be answered in a manner that may lead ultimately to donations. A priority increase of 3 positions, 2 research assistants and a clerk-typist and funds

for travel, transportation of portraits, services, and supplies (\$28,000) will permit this objective to be pursued at a level indispensable to the other operations of the National Portrait Gallery itself. A further increase of 6 research assistants, technicians, and clerical positions would permit this effort to be organized at a regional level in three different areas around the country. This would enable the project to be pursued in cooperation with local historical societies and similar groups resulting in completion by 1971 rather than an estimated five years later. The Revolutionary Period will be given priority in this project. This supplemental effort would cost \$43,000.

The national collection of portraits and other likenesses now numbers 350 items, including 14 approved by the National Portrait Gallery Commission at its annual meeting in April 1967. New acquisitions are being sought diligently, with conscientious regard for the high standards that will be required if the exhibits from the permanent collection are to maintain the degree of public interest required for the successful operation of the Gallery. An increase of \$50,000 in purchase funds is requested to permit the Gallery to respond to opportunities to secure unique or otherwise unobtainable works of the highest merit. Of this total for the acquisition of portraits, \$25,000 are a priority request.

Public Enlightenment

The public opening of the Gallery is a necessary step toward attracting the donations of portraits and the degree of public support required for satisfactory progress in the development of the collections.

The theme for the opening, chosen for its inherent interest and public appeal, is "What is an American, this new man?" (Crevecoeur). The exhibit will demonstrate that a collection of portraiture can be the means for a significant exploration of national identity and history. To complement the exhibit of the permanent collection the Gallery must develop the capacity to plan and execute special and temporary exhibits. Two museum technicians and a clerk-typist are required. Funds are requested also for freight and contracts for framing, exhibits' panels, dioramas, cases, and pedestals. This is a total request for the exhibition program of \$29,000 of which 3 positions and \$22,000 is a priority requirement.

Specification of Increase

To employ 5 research assistants, 1 photographer, 3 museum technicians, 1 stack attendant, and 8 clerk-typists (\$100,000); personnel benefits (\$8,000); travel (\$2,000); transportation of things (\$2,000); other services (\$16,000); supplies and materials (\$6,000); and the purchase of portraits (\$50,000); a total increase of 18 positions and \$184,000.

JOSEPH H. HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Program Category	1967		1968		1969	
	Pos.	Amount	Pos.	Amount	Pos.	Amount
Reference Col- lections	0	0	3	\$55,000	6	\$132,000

The Joseph H. Hirshhorn Museum and Sculpture Garden will be the permanent home of the collection of art of Joseph H. Hirshhorn and the Joseph H. Hirshhorn Foundation, donated to the Smithsonian Institution for the benefit of the people of the United States. This museum will be used for the exhibition, study, and preservation of this unique collection of art.

An increase of \$77,000 will permit substantial headway on properly organizing, conditioning, photographing, readying the collection for exhibit, and planning the exhibitions and other programs in the new museum.

Public Law 89-788, approved by the President on November 7, 1966, provides for the establishment of the Joseph H. Hirshhorn Museum and Sculpture Garden to be located on the approved Mall site between Seventh and Ninth Streets, Madison Drive and Independence Avenue. The preliminary architectural design and plans for this museum have been completed and approved by the National Capital Planning Commission and the Commission of Fine Arts. It is anticipated that the museum will be under construction during fiscal year 1969 and should be completed six months after the close of that fiscal year.

The museum staff must undertake a very substantial job during 1969 of preparing for the opening of a major gallery of art in fiscal year 1970 or 1971. Acquisitions to the collection must be fully documented. The collection of approximately 6,000 paintings, drawings, and sculptures, now located in New York and Connecticut, must be prepared for shipment to Washington. A thorough analysis must be undertaken of the physical condition of all pieces with conservation and preservation procedures applied where necessary to assure the collection's best possible condition for exhibition and study. The extensive collection must be photographed in order to enhance its documentation, to assist researchers and students in studying the collection, and to aid in the design and production of exhibits. This work will be done by contract. A total museum program including the permanent exhibitions and other facets of gallery life must be planned. Framing and mounting needs must be determined and obtained. A basic library of books, catalogs, periodicals, and other reference materials must be developed to meet essential research needs. To meet this plan of work, a curator, a technician, and a librarian must be added to the staff and supported with additional funds for travel, supplies, contractual services, and the purchase of library materials.

The donor will continue to absorb certain costs for maintaining the temporary offices in New York City. In fiscal year 1969 the Smithsonian Institution will assume full operating costs of the existing office and provide additional temporary office space for essential needs.

Specification of Increase

To employ 1 curator, 1 technician, and 1 librarian (\$23,000); personnel benefits (\$2,000); travel (\$3,000); rent, communications and utilities (\$15,000); other services (\$28,000); supplies and materials (\$1,000); and equipment (\$5,000). This is a total increase of 3 positions and \$77,000.

Radio Astronomy

Radio astronomy has developed rapidly since the Second World War and now provides a rich source of new astrophysical information. Observations of discrete spectral lines can give clues to processes on the atomic and molecular scale. Data on flare stars can tell about violent events on stars. The study of quasars (quasi-stellar-radio sources) can yield knowledge about these strange objects which seem to emit vast amounts of energy by some process not yet understood. During 1967 and 1968, an 84-foot radio telescope for joint use by the Observatory and Harvard College Observatory will have been installed and readied for a vigorous observing program.

It is essential to add an additional radio astronomer to the small group of radio astronomers at the Smithsonian Astrophysical Observatory in order to use this instrument efficiently during 1969. This facility must be provided also with up-to-date equipment. In some sophisticated observing programs, for instance, the Smithsonian Astrophysical Observatory and the Harvard College Observatory instrument could be one terminal of a radio interferometer with a distant installation at the other terminal and with both sites equipped with atomic clocks and tape recorders. Cooperation with other groups is a keystone in the current Smithsonian Astrophysical Observatory program.

In a longer range view, the gradual build-up of radio astronomy at the Observatory is matched to the projected growth of radio astronomy facilities in the nation. Through affiliation with the Northeast Radio Observatory Corporation, the Observatory has joined with other institutions in the northeastern United States in planning for a large regional facility. The activities at the Smithsonian Astrophysical Observatory during 1969 include an orderly effort to prepare for the time when this facility may be available to its scientists.

An increase of \$18,000 for personnel compensation and benefits and \$29,000 for supporting equipment is a priority request; a total of 1 position and \$47,000 for this program.

Gamma Ray Astronomy

Gamma ray astronomy, the detection and analysis of gamma rays from astronomical objects, is still in an embryonic state. Gamma rays are particularly important for the information they carry about high energy phenomena in the universe. Theoretical calculations predict that a detectable flux of gamma rays is emitted by several astronomical objects. Scientists at the Observatory have played an important role in exploring the great potential of this branch of astronomy and in developing instrumentation for its pursuit.

During 1967 and 1968, a single large reflector to collect Cherenkov light (produced after a high energy gamma ray enters the earth's atmosphere) will have been installed at the Smithsonian Astrophysical Observatory's Mt. Hopkins site. Preliminary measurements will have been made with this instrument. Based on this experience, the Observatory plans to procure a second reflector during fiscal year 1969, to be installed at a position provided on the same mount as the present collecting instrument. By this augmentation, the sensitivity of the installation will improve, possibly by a factor of 10.

This improvement in instrumentation is part of a continuing systematic development to exploit this branch of astronomy. It is particularly important to note that gamma ray astronomy occupies an anchor position at the high energy extreme of the electromagnetic spectrum, and that high energy processes play important roles in astrophysical phenomena. The Smithsonian Astrophysical Observatory is the only known observatory pursuing this branch of astronomy with ground-based instrumentation of large size. Thus, the Observatory is essentially the national facility for this work.

An increase of \$3,000 for travel, \$7,000 for other services, \$15,000 for materials, and \$96,000 for equipment, will meet a priority need for the planned strengthening of the program; a total of \$121,000.

Meteorites and Cosmic Dust

Personnel and laboratories of the Smithsonian Astrophysical Observatory are investigating the petrography, mineralogy, metallurgy, and isotopic composition of meteorites and cosmic dust. Their goal is to reveal the history and evolution of the solar system as recorded in meteoritic matter. Current activities include a concerted effort to measure the quantity of extraterrestrial dust falling on the earth and to establish criteria for its identification. The same techniques can be applied to lunar samples that may be obtained during the late 1960's and early 1970's.

The activity in the laboratories concerned is expected to accelerate. In particular, preparations are already underway for analysis of returned lunar samples. Observatory scientists have been designated by the National Aeronautics and Space Administration to be principal investigators for specific properties and aspects of the lunar samples. This is an example of the national utilization of a Smithsonian Astrophysical Observatory capability developed over several years.

During 1968, substantial additions will have been made to the laboratory equipment for this research at the Smithsonian Astrophysical Observatory. These additions were scheduled some years in advance and similar purchases are not planned for 1969. This phasing of major laboratory improvement is reflected in a decrease in the total required funding for this project in 1969.

A priority increase of \$1,000 for travel, \$7,000 for rent, \$16,000 for other services, \$11,000 for supplies, an increase of

\$35,000, will be offset by a decrease of \$69,000 for equipment; a total net decrease of \$34,000 for this program.

Theoretical Astrophysics

The Observatory staff has maintained its recognized position of leadership in several areas of theoretical astrophysics. Significant contributions have been made to the knowledge of stellar atmospheres and the evolution and mechanics of the solar system. The Observatory continues to pioneer in the use of high-speed digital computers for solving astrophysical problems involving the use of complex mathematical computations and models.

As current problems under investigation become more and more complex, computer needs grow. Thus, a measured increase of the budget for computing needs is anticipated over the next several years.

A priority increase of \$10,000 for services is requested.

An additional level of support for the study of theoretical astrophysics is desirable. This would consist of a further increase of \$10,000 for computing services and \$50,000 for equipment to add flexibility and utility to the use of the computer by converting data to visual or photographic format. This is a further increase of \$60,000.

Optical Observatory and Observations

The principal increase in the Observatory's request of 1969 is for the continued, phased development of a major observing facility on Mt. Hopkins, Ariz. Over the past several years, scientists at the Smithsonian Astrophysical Observatory have demonstrated an escalating need for observation time on conventional telescopes.

Astronomy from the ground and astronomy from space complement one another. The Observatory has not had such a telescope. The need has exceeded the time available on instruments at other observatories, particularly in support of stellar atmosphere research. A meaningful program addressed to this particular need will occupy productively the full time of a modest-sized optical instrument. Thus, during 1968, a 60-inch telescope is being procured and during 1969 will be housed at the Observatory's site on Mt. Hopkins, Ariz. To man this instrument properly, two observer-astronomers must be attached to the Mt. Hopkins staff during 1969. Additional support costs are required also.

In a parallel effort, beginning during fiscal year 1968, the preliminary design of a larger instrument, possibly utilizing a mosaic of 60-inch metal mirrors, will have been completed. During fiscal year 1969, the Observatory expects to undertake the detailed design of this instrument.

By 1969, the following will be in operation on Mt. Hopkins: (1) gamma ray astronomy instrument; (2) satellite tracking laser; (3) Baker-Nunn camera; (4) 12-inch telescope; and (5) 60-inch telescope. This level of activity justifies the establishment of some general support capability, not directly associated with any one particular instrument or research program. The addition of an observer-astronomer and a modest budget for general support is

urgently needed for 1969. The expected 1969 level of activity and the growth anticipated in subsequent years indicates also that 1969 is the proper year to establish an electromechanical shop to service the needs of the Mt. Hopkins complex. Since a delay would compromise efficiency in maintenance and refinement of the instrumentation, the initial phase of the establishment of the electromechanical shop would be started in fiscal year 1969.

This is a priority increase of \$34,000 for personnel compensation and benefits, \$11,000 for travel, \$3,000 for transportation of things, \$161,000 for other services, \$19,000 for supplies and materials, and \$54,000 for equipment for this important program; an increase of 3 positions and \$282,000.

A further increase of \$130,000 would permit full acquisition of the equipment needs for the electromechanical shop, and, in view of rising costs, would be a sound investment.

Flight Experiments

Since a number of significant wave lengths in the electromagnetic spectrum cannot penetrate the earth's atmosphere, scientists must devise means for making observations above the blanket of atmosphere. The Observatory is actively exploiting both balloons and artificial satellites in order to make critical measurements of gamma rays and ultraviolet radiation of extraterrestrial origin.

No significant change is anticipated in the Observatory's funding for flight experiments in 1969. No increase is sought for this program.

Planetary and Lunar

Studies of planets and satellites in the solar system, including investigations which bear on the earth as a planet, are making substantial advances in this decade. New methods are being devised and sophisticated equipment built at observatories throughout the world. The Observatory is making significant contributions, particularly in the areas of planetary atmospheres and geodesy. This has been possible largely because of the Observatory's access to satellite tracking data.

No significant change in the Observatory's funding of these activities is anticipated in 1969; still, important milestones will be reached during this period. One will be the completion and publication of a 1968 Smithsonian Institution Standard Earth. Another will be the analysis of phenomena in the earth's atmosphere during the approaching peak of solar activity.

A modest increase in funding would be desirable to insure adequate support of projects in this research area. An increase of \$1,000 for travel, \$2,000 for other services, \$3,000 for supplies and material, and \$3,000 for equipment; a total of \$9,000 is requested.

Meteors and Comets

Both radio and optical observations of meteors are made regularly by networks of cameras and radars operated by the Observatory. In many respects, the Observatory acts as the national meteor observatory. Optical observations of comets are made by the Baker-Nunn tracking network. The distribution of its stations

around the world make possible nearly continuous observations of bright comets, yielding data not otherwise available anywhere in the world.

Although no change in the Observatory's funding level for these activities is planned for 1969, the program will continue vigorously. Recently, data from very bright meteors show that most of the incoming meteoroids are surprisingly fragile. This is one example of an exciting result which must be confirmed and explored in future programs. No increase is requested for this program.

General Scientific and Administration

This category includes general scientific areas such as programs of the Central Bureau for Astronomical Telegrams and the Central Bureau for Satellite Geodesy. It embraces studies in astro-archeology and history of astronomy. Also included under General Scientific and Administration are the normal administrative costs of operating the Observatory.

A desirable increase would be \$8,000 for equipment.

Specification of Increase

To employ 1 radio astronomer and 3 observer-astronomers (\$48,000); personnel benefits (\$4,000); travel (\$16,000); transportation of things (\$3,000); rent, communications, and utilities (\$7,000); other services (\$206,000); supplies and materials (\$48,000); and equipment (\$301,000); a total increase of 4 positions and \$633,000.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

Program Category	1967		1968		1969	
	<u>Appropriation</u> <u>Pos.</u>	<u>Amount</u>	<u>Appropriation</u> <u>Pos.</u>	<u>Amount</u>	<u>Estimate</u> <u>Pos.</u>	<u>Amount</u>
Research and Scholarship .	19	\$187,500	19	\$186,500	43	\$580,500
Reference Collections .	<u>2</u>	<u>116,500</u>	<u>2</u>	<u>120,500</u>	<u>22</u>	<u>296,500</u>
Total	21	\$304,000	21	\$307,000	65	\$877,000

A natural reserve was set aside in the Panama Canal Zone by Act of Congress in 1922. This reserve, Barro Colorado Island, has always been utilized, with the approval of Congress, for scientific research and education. With the continuing encouragement and support of Congress, Barro Colorado Island has developed into a major center for scientific research in the tropics. It is a credit to the nation that Congress exercised this foresight in 1922, because the knowledge accumulated since that time about this region and its plants and animals, serves as a baseline available nowhere else for continuing research on the tropical environment. The Barro Colorado reserve, therefore, serves tropical ecology in the same manner that the collections in the Museum of Natural History serve the biologist studying systematics and zoogeography, as a reference and guide.

The urgency of the study of tropical biology is becoming recognized at last because expanding use of the land is leading to increased destruction of natural resources in this area, and since the United States is increasingly concerned with the well-being of the human population in underdeveloped countries, and since most of these are in the tropic zone, better understanding of the tropical environment and its potential is needed. Scientifically also, the tropics are extremely important since there is convincing evidence that the tropics are the place of origin and the principal center of evolution of most groups of organisms. The tropics also support a much larger number and a greater diversity of species than other groups. Ecological and behavioral relations among them are more complex in the tropics than elsewhere. Adaptations evolve more rapidly and tropical species are more apt to be successful in invading other regions than the reverse. The analysis therefore of the tropical environment may be expected to yield insights into fundamental biological processes such as competition and cooperation among species and the development of social organization.

The Smithsonian Tropical Research Program is in a position to contribute essential information to many Government agencies concerned with the manipulation of tropical environments. This includes the Departments of Defense, Agriculture, and Interior. It is, therefore, logical that the existing Smithsonian Tropical Research

Institute be expanded and encouraged to move forward in this area, and that while the research should be in collaboration with other Government agencies, and with universities their long experience puts them in a position to formulate the basic program. In addition, it is only through such a group as the Smithsonian Tropical Research Institute that long-term studies are possible, since Smithsonian Tropical Research Institute personnel are on the scene continually, while university groups and visiting scientists are invariably seasonal, and work only for short periods of time. Many errors have been promulgated by short-term research projects, which do not account for long-period cycles in the environment, such as seasonal, annual, and multiyear periodicities.

If the Smithsonian Tropical Research Institute is to continue to improve and carry forward a responsibility in tropical research, it needs support and funding. The importance of this critical stage in development is due to a combination of historical factors. Historical evidence indicates that scientific institutions cannot remain stable for many years. They either improve or they deteriorate. The Smithsonian Tropical Research Institute cannot continue to "mark time" without the probability of a downhill slide. Equipment and facilities would deteriorate, the experienced staff would leave, and both the number and quality of visiting scientists and students would decline.

To regain its earlier impetus as soon as possible, to repair deficiencies in personnel and equipment, and to assume a responsibility for tropical research, an increase of 44 positions and \$570,000 are requested for fiscal year 1969.

Research and Scholarship

The continued development of the scientific program requires that an urgent expansion or addition of scientific competence be made in those areas now lacking. Because of a wide variety of modifications among biological populations, a comprehensive analysis requiring the application of many skills and disciplines is required for complete testing. A testing program comprises a series of studies of local plants and animals with emphasis on their adaptive modifications, especially those that concern interspecies relationships such as competition, cooperation, and communication. These studies are very closely interrelated, each representing different factors influencing survival. Programs must be broadened to study as many different kinds of biological populations and as many different kinds of tropical environments as possible. It is important at least to sample dry tropical areas as well as wet highlands, lowlands, fresh water, and marine environments during each season of the year. This is imperative because too narrow a view of what constitutes the tropical climate has in the past and will in future provide a basis for serious error. It is also necessary to determine

whether the observed interspecies relationships have identifiable causes and effects which can be anticipated and thus used for prediction.

The possibility of a sea-level canal being constructed within the next decade imposes a new sense of urgency for scientific research in the Panama area. The Panama region is a land bridge uncovered in the Pleistocene period and now separating two quite different marine populations known to be descended from the originally single biota. The existence of such divergent population in proximity to one another and inhabiting very similar environments, provides an exciting opportunity to study the effects of geographic isolation on rates of evolution of morphology, physiology, adaptations, and other aspects of biological life.

The major study currently underway in this research area, includes identification of the fish and invertebrate populations of the Atlantic and Pacific Oceans at the vicinity of the mouths of the present canal, and their historical relationships and population characteristics. Experimentation now in progress is designed to determine which of these animals is likely to hybridize, and to predict which populations are likely to survive the mixing which will take place in the event of a sea-level cut. Comparative studies with the somewhat analogous situation in the Suez Canal suggest that this exchange

may be catastrophic, killing off commercially exploited populations, and introducing new biological regimes which may or may not become economically valuable. It must be expected, also, that the effects of a canal cut will not be limited to the aquatic areas, but that they will in turn, change the shorelines along the canal and make its influence felt progressively inland.

The importance of this research in the national interest can be judged by the following comments taken from a letter, dated September 14, 1967, by Brigadier General Charles C. Noble, USA, Engineering Agent, Atlantic-Pacific Interoceanic Canal Study Commission, Office of the Chief of Engineers, to the Secretary of the Smithsonian Institution:

"The Atlantic-Pacific Interoceanic Canal Study Commission is charged with the conduct of a feasibility study of finite duration and is not performing research as the term is commonly used. The Commission is, however, directly concerned with the research being done in many areas by other agencies as the results are applicable to the study of engineering feasibility of a sea-level canal across the American Isthmus.

"The work being performed by the Smithsonian Institution in the field of tropical research, and particularly that work being performed in Central America, is producing data and experience which are being used by the Canal Study Commission in its studies. The biological studies planned by the Smithsonian Institution in the Isthmus region will provide basic data of great value to those responsible for the design, construction, and operation of a Transisthmian sea-level canal, if construction of a canal is determined to be in the national interest. A canal connecting the oceans across the Isthmus would provide a unique opportunity for scientific study of regional ecology and any detectable changes thereto which may accompany this project. The Smithsonian Institution possesses the capability to make a valuable contribution to this scientific effort.

"The Atlantic-Pacific Interoceanic Canal Study Commission is currently utilizing the experience and resources of the Smithsonian Institution. For example, the scientists and technicians of the

Smithsonian's facility at Barro Colorado Island, Canal Zone, have provided direct assistance in the initiation and conduct of the bioenvironmental studies being performed by the Commission. Arrangements have been made to use the identification, processing, and storage services of the Smithsonian Institution for many specimens collected along the two canal routes under intensive field study and in the adjacent ocean areas. The Commission will make its data available to the Smithsonian as it is evaluated and will thereby ensure that such data will be permanently available to the scientific community.

"As Engineering Agent for the Atlantic-Pacific Interoceanic Canal Study Commission, I strongly support the current and long-range tropical research programs of the Smithsonian Institution. Much additional work in this field is required to enable us to understand and evaluate the ecological effects of large-scale engineering projects in tropical regions and to permit us to take appropriate measures, through design based upon knowledge, to alleviate any harmful effects to man and his environment.

"I have coordinated this correspondence with the U. S. Atomic Energy Commission and am pleased to relay to you the concurrence of that agency.

"I look forward to continued cooperation with you and the Smithsonian Institution in our mutual endeavors. "

Minimum requirements for continuing the present level of research activity are 6 new positions, including 3 scientists, 2 supporting technicians, 1 laborer, and \$78,000 for salaries, field equipment, transportation to field areas, research vehicles, and related expenses. This is a priority request.

It must be understood that the priority request will not permit the program advancement in tropical research recommended by the Smithsonian Institution. To accomplish this goal, an additional increase of 18 positions and \$316,000 are requested. This includes 3 additional scientific specialists; 1 electronics technician for maintaining sound equipment; 5 laboratory technicians to assist in experiments, to care for laboratories, equipment, and animals, and to relieve scientists of routine work; 2 field assistants; 6 laborers, and 1 custodial laborer; along with necessary funds to maintain, operate, repair, and clean existing laboratories and to provide staff for a new research support facility to be located on the mainland as backup support for scientists working in areas other than Barro Colorado Island.

Reference Collections

The Smithsonian Tropical Research Institute is charged with the curation of Barro Colorado Island located in the Panama Canal. This natural reserve is operated much like a national park, except that it exists basically for biological research. It has been the source of scientific advances by many of the world's foremost biologists specializing in tropical organisms and ecology who have conducted research here. It is also one of the very few tropical locations where graduate students and advanced scientists can be trained in methods and theoretical concepts of tropical biology. Increased recognition and use of the Island for its intended purpose are reflected in an increase in the number of visits to the Island, as noted here.

	<u>Fiscal Year 1966</u>	<u>Fiscal Year 1967</u>
School children	55	47
Undergraduate students	29	27
Graduate students	25	138
Senior scientists	88	96
Technical assistants to scientists	7	13
Amateur biologists and members of natural history groups	73	103
Other	12	44
	<hr/>	<hr/>
Total	289	468

The maintenance of such a reserve is a complex operation. It is necessary to protect the area against poachers and other intruders who wish to cut trees and plants or hunt animals. It is also necessary to clear trails, build bridges over streams, and label trails and points of interest. It is necessary to maintain a camp with eating, sleeping, and emergency facilities. It is necessary to maintain boats, docking facilities, mechanical equipment, and communications. It is necessary to maintain administrative support for visitors, including operation of the library, and arranging for travel and billeting.

A very high priority increase of 12 positions and \$81,000 is requested to repair deficiencies in the operating staff of this reserve. Essential support positions include 2 cooks, 2 custodial employees, 4 laborers, 1 bookkeeper, and 1 librarian. There is also an urgent need for an administrative officer and a clerk-typist to serve as liaison, in Washington, D. C., with other units and activities of the Smithsonian Institution.

To improve support services to an effective level of operation, to avoid the need for overtime, and to relieve the professional staff of many routine duties, an additional increase of 8 positions and \$95,000 is requested. This includes 2 clerks, 1 additional game warden, 1 boatman, and 3 laborers. Many of these duties are now performed by temporary employees. This is not a satisfactory method of operation and needs to be corrected.

Expenditures for the maintenance of laboratory and other facilities at Barro Colorado Island will not exceed \$350,000, from funds appropriated, in accordance with 79 Stat. 1012.

Specification of Increase

To provide for 44 positions (\$246,000); personnel benefits (\$18,000); travel (\$21,000); transportation of things (\$7,000); rent, communications, and utilities (\$16,000); other services (\$30,000); supplies and materials (\$25,000); and equipment (\$207,000); a total increase of 244 positions and \$570,000.

RADIATION BIOLOGY LABORATORY

<u>Program</u> <u>Category</u>	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship...	25	\$394,000	31	\$383,000	56	\$900,000

The Radiation Biology Laboratory conducts basic scientific research on the functions of living organisms affected and controlled by radiation, primarily as related to the utilization of sunlight. Such studies produce information fundamental to the development of technological advances and applications, especially in food production and environment control. This broad spectrum of investigation includes measurement of the quality and quantity of solar radiation; studies on the mechanisms by which radiation controls the metabolism of plants and animals; the biophysics and biochemistry of growth and development of organisms; the development and calibration of solar radiation standards; and age determination of biological specimens by radiocarbon techniques.

The Laboratory has a long history of accomplishments in the study of biological mechanisms regulated by radiation. These include, for example, the first accurate measurements of the relative effectiveness of different qualities of light in producing photosynthesis

and in inducing seed germination. The same innovative, fundamental approach is being continued to provide presently unavailable resource information to the world biological community. Programs of national interest, such as primary productivity of the oceans, theoretical limits of food production as a function of plant growth and development, or the regulatory control of plant and animal populations lack basic data, which are being obtained by the Radiation Biology Laboratory. The structure of living membranes and the mechanisms by which the exchange of fluids across them is controlled are questions which have formed bottlenecks in the advancement of both medicine and technology. No successful industrial models have been made despite elaborate and expensive attempts, and an adequate understanding of cell function remains to be achieved.

The research programs of the Radiation Biology Laboratory have been severely hampered and curtailed by minimum funding during the past two fiscal years, which has not kept up with inflationary trends. It has been found necessary to relocate the Laboratory from inadequate quarters to new space and facilities that will permit its competent staff, with a uniquely broad range of interdisciplinary backgrounds, to attack complex biological problems more effectively and obtain solutions more rapidly. A priority increase of 15 positions and \$215,000 is requested to relocate to modern scientific facilities; to mitigate

deficiencies in professional, technical, and subprofessional support; and to ease the critical shortage of equipment and supplies. This priority amount is apportioned as follows:

\$35,000 for necessary scientific and technical support. Senior scientists must presently perform low-level technical chores. Four technicians (2 biological and 2 chemical) and one secretary are required to improve the present substandard 0.25 ratio of subprofessional to professional staff, thereby permitting scientists to function at a more nearly professional level.

\$70,000 for an electron microscope. The ultrastructure of membranes and the mechanisms of membrane function are still unresolved. An electron microscope will fill a serious equipment gap, enabling researchers to examine critically, in intimate detail, light-sensitive subcellular structures, and permitting them to test and extend current theories concerning regulatory mechanisms.

\$10,000 for chemicals and expendable supplies. Radioisotopes are required for the biochemical programs for experiments on light-sensitive mechanisms which cannot be examined by any other physical or chemical means. Isotopes for a single experiment can cost as much as \$500.

\$100,000 for 10 positions and materials for specialized mechanical services related to relocation of the Laboratory. The

proposed facilities at Building No. 7, Van Ness Street and Connecticut Avenue, include eight controlled-temperature chambers, a greenhouse, and 10 plant-growth rooms in which temperature, light quality and quantity, mineral nutrition, and other growth-regulating variables can be precisely and uniformly controlled. Several research projects require special ventilation and refrigeration facilities which must be maintained continuously around the clock for long periods. Interruption of services for more than a few hours in a single experiment of 3-months' duration can invalidate the entire experiment. Five operating engineers to provide 24-hour coverage and a support staff of one electrician, one refrigeration specialist, one painter, one plumber, and one general mechanic are required to assist in developing and maintaining the specialized facilities. Materials and supplies for this mechanical support service require \$16,000. A single replacement of fluorescent lamps in the controlled-environment rooms costs about \$1,500, and a minimum of four complete changes per year are necessary.

An additional 10 positions and \$302,000 are requested to enable the Laboratory to achieve its research goals expeditiously and to enable it to provide, on a timely basis, data required by university and Government agency research groups pursuing programs in environmental biology related to solar radiation. This sum will be used for the following purposes:

\$35,000 for a radiation physicist to fill an existing gap in the Environmental Biology and Solar Radiation Program and 4 technicians (physical and mathematical) to allow current responsibilities to be met for calibrating solar radiation standards for worldwide use.

\$26,000 for computer service to handle the acquisition and reduction of biological and solar radiation data and to make correlations between reduced data.

\$40,000 for chemicals, expendable supplies, and books and periodicals to meet requirements of the research programs.

\$145,000 for equipment. No appreciable funds for replacement of obsolete and worn equipment have been budgeted previously for research projects. Therefore, rather than incur moving costs for this equipment as the Radiation Biology Laboratory is relocated to the National Bureau of Standards, Building No. 7, it is a less expensive long-range alternative to purchase and install new equipment that will materially improve the scientific quality and quantity of results for the three major research programs. Examples of such items of equipment are: recording spectrophotometers, centrifuges, autoclaves, monochromators, and radiation detectors.

\$56,000 for support building and mechanical services. Five positions, including one electrician, one refrigeration specialist,

one carpenter, one sheet metal worker, and one general mechanic; and \$14,000 for supplies and materials are required to service expanded programs in the new location.

Specification of Increase

To provide for 25 positions (\$181,000); personnel benefits (\$15,000); travel (\$5,000); other services (\$21,000); supplies and materials(\$80,000); and equipment (\$215,000); a total increase of 25 positions and \$517,000.

OFFICE OF ECOLOGY

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship	5	\$118,000	5	\$118,000	18	\$368,000

The Smithsonian Office of Ecology plans and oversees a program of fundamental research on the interrelationships of living organisms, including man, with their total environment. This program emphasizes the effects of rapidly changing environments on natural resources and on human societies. Its work brings into concerted action efforts underway in the Smithsonian's research bureaus with those of other public and private agencies and with activities such as the International Biological Program.

An increase of 13 positions and \$250,000 is requested for fiscal year 1969.

Research and Scholarship

The primary objective of the Smithsonian program in ecology is to advance basic ecological theory of natural systems at the higher levels of biological organization--that is, populations of plants and animals, vegetation as a pattern of plant communities, communities of animals, and communities-plus-environments as whole ecosystems. Natural ecological systems are those least modified by man, but even here man is an integral part of the ecological system, and the role of human society is not excluded from ecological studies at the Smithsonian. The program in

ecology will contribute toward increasing the scientific foundation for the maintenance and the improvement of high-quality environmental relationships of contemporary human societies.

Specific objectives of the Smithsonian program in ecology are as follows:

1. To contribute to an understanding of ecological theory, with emphasis on mechanisms through which equilibrium relationships are maintained in ecological systems.
2. To encourage the development of baseline descriptions of ecological systems as frameworks for research on ecological processes.
3. To encourage the elucidation of evolutionary relationships between closely-related species through ecological studies.
4. To develop cooperative programs between the Smithsonian Institution and other organizations, such as universities and Federal agencies, for research and education in ecological studies in the United States and abroad.
5. To contribute toward a world program in the conservation of nature and natural resources.

Currently the program has two major focuses; one on the development of international programs of ecological research, especially in foreign countries where Public Law 480 funds have been made available through the Smithsonian Foreign Currency Program; and the other on ecosystem-oriented science at the Chesapeake Bay Center for Field Biology.

The Johns Hopkins University and the University of Maryland have joined the Smithsonian Institution in establishing the Chesapeake Bay Center for Field Biology for ecological research and the education of graduate students. The cooperative arrangement increases the effectiveness of an interdisciplinary research program by enlarging the pool of scientific talent. This is an open-ended consortium that may be joined by other universities as the program evolves. The Center is located about seven miles south of Annapolis, Md., on the western shore of the Bay. Under Smithsonian ownership, it consists of about 700 acres of land, including over 10 miles of undeveloped shoreline, that are preserved effectively for a program of studies extending indefinitely into the future. The abandonment of about half the area from agriculture more than two decades ago provides unusual opportunities to study changes in vegetation and associated animal life. With its relatively undisturbed areas of mature forest, salt marshes, eroding bluffs, sandy beaches, and shallow estuaries, the Chesapeake Bay Center for Field Biology constitutes a relatively stable baseline against which to compare other systems in the rapidly changing region, and offers a variety of opportunities for long-term ecological studies. The research information produced can be applied in the development of both environmental standards and the construction of models for determining the effects of man's accidental or premeditated environmental manipulations. Development of the Chesapeake Bay Center for Field Biology is considered to be the highest priority for the Office of Ecology. At the present time there are 15 research studies in various subjects underway at the Center. One

research ecologist is needed to coordinate, develop, and conduct the field research program, and one secretary is required. One maintenance custodian is required to maintain facilities and 2 field technicians are required to assist with research. This is a priority request of 5 positions and \$42,000.

An additional position and \$50,000 are requested to provide professional seminars, symposia, and summer institutes concerning field studies in ecosystem ecology.

The international program can lead to the development of a world network of centers for the study of ecological systems, with relevance to adjusting societies to natural resources. Such a program is directly related to the conservation of our own natural resources in the United States. If the imbalance of population and resources continues in India, for example, the drain on United States' resources will become critical. The international program is designed to assist foreign countries to develop professional ecologists as well as to accomplish basic ecological research. To permit continuation and limited expansion of ecological research in foreign areas, one research ecologist is requested to do research and to administer the program of research in Ceylon which is now being supported by Smithsonian Institution Public Law 480 funds, and includes 4 projects involving 10 scientists. This is a priority request of one position and \$15,000.

An additional 4 positions and \$115,000 are requested to support other international activities including the Tropical Rain Forest Program

in Ecology at Belem, Brazil, and to help develop an international conservation program in Latin America, Africa, and Asia.

To assist the Director of the Office of Ecology in administrative matters, one administrative assistant is needed to help develop programs of ecological research in excess foreign currency countries; to assist with the preparation of proposals to granting agencies for research, land acquisition, and education; and to coordinate the work of the supporting office staff. Also, one clerk-typist is needed to serve the entire Office of Ecology in typing and filing along with basic support for new personnel including travel, equipment, and supplies. This is a priority request of 2 positions and \$28,000.

Specification of Increase

To provide for 13 positions (\$113,000); personnel benefits (\$8,000); travel (\$10,000); transportation of things (\$4,000); rent, communications, and utilities (\$3,000); printing and reproduction (\$11,000); other services (\$85,000); supplies and materials (\$7,000); and equipment (\$9,000); a total increase of 13 positions and \$250,000.

OFFICE OF OCEANOGRAPHY AND LIMNOLOGY

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship ..	18	\$268,000	18	\$254,000	57	\$1,644,000

The Office of Oceanography and Limnology directs the use of the Smithsonian's research talents, marine collections, and support services toward the accomplishment of national goals in oceanography. The Office serves in several capacities. It facilitates the productive involvement of Smithsonian scientists engaged in aquatic research in programs of local, national, and international concern. It provides other scientists and research organizations with a focal point for effective cooperation with the Smithsonian, particularly in specimen-oriented research. It manages and operates the Smithsonian Oceanographic Sorting Center which provides essential sorting, documenting, and identification services for specimens collected by oceanographic expeditions and surveys. In these functions, the Smithsonian has established no new responsibilities. It has simply extended a long available capability into the integrated plan for oceanographic development within national priorities.

An increase of \$1,390,000 is requested to enable the Institution to meet its existing obligation to the national program in oceanography. Of this total increase, \$1,200,000 represent the additional funding to further an adequate program of independent and cooperative marine science research. An increase of \$190,000 is for the research support needs of the Smithsonian Oceanographic Sorting Center.

Research and Scholarship--Science

There is increasing intensity of interest in all aspects of ocean studies throughout the Federal Government, private research laboratories, universities, other countries, and international organizations. The Smithsonian can continue to contribute its resources and accumulated knowledge to this important effort. Studies in marine biology, geology, and sedimentology are being conducted by Institution departments. The Smithsonian has engaged in ocean explorations since 1850, recently sending its scientists to participate in the International Indian Ocean Expedition, the International Cooperative Investigations of the Tropical Atlantic, the Guinean Trawling Survey, the Eastern Tropical Pacific Expedition, the world cruise of the Oceanographer of the Environmental Science Services Administration, the geological studies of the Atlantic Continental Shelf, the United States Antarctic Expedition, and many others.

The Office of Oceanography and Limnology has planned and developed research projects with marine biologists, geologists, and other ocean-oriented scientists of the Smithsonian's Museum of Natural History and the Smithsonian Tropical Research Institute and has participated with other Government laboratories, universities, and industries in science programs related to the identification, classification, and ecology of marine organisms and the geophysical aspects of the oceanic environment. This Office acts to catalyze marine research by defining scientific areas of special interest to the oceanographic community. It arranges for independent efforts by Smithsonian scientists and for direct cooperation between them and other organizations.

Since the Office is in close and continuous communication with many of the user agencies, such as the Office of Naval Research, Environmental Science Services Administration, Atomic Energy Commission, National Aeronautics and Space Administration, it serves as a central point for planning and organizing cooperative efforts.

The National Council on Marine Resources and Engineering Development has recognized the contributory nature of Smithsonian marine research as it supports studies of the harvest of food from the seas and man's use of the shoreline.

Smithsonian research in the marine sciences plays a dual role: it develops basic research information for the advancement of knowledge and it contributes this knowledge through publications and other media toward the overall problem of understanding the ocean.

The amount of \$1,200,000 is requested as a desirable level of funding to permit the Office of Oceanography and Limnology to undertake and support the following projects:

--To enable Smithsonian scientists to take advantage of the planned Barbados Oceanographic and Meteorological Expedition of the Environmental Science Services Administration, by using these ships of opportunity to make extensive phytoplankton collections. These collections will lead to estimates of plankton productivity and an increased understanding of the food resources of the sea. Physical and chemical data collected as part of the primary mission of the expedition will support the biological study. Two positions and funds for field support, a total of \$75,000, are required.

--To permit a substantially expanded use of underseas vehicles by Smithsonian scientists in order to study reef-forming plants which help stabilize the Eastern Coast of the United States; to study unknown mid-ocean organisms as potentially exploitable fisheries; to learn more about the structure of

the mid-Atlantic ridge as a key to the movement of the earth's crust; and to explore areas of possible archeological significance. Two hundred thousand dollars are required for the charter of underseas vehicles.

--To conduct an expedition to the East Indies, believed to be the original source of many of today's marine species and containing a wealth of relatively unstudied biological and geological data. Expenses of the expedition would be \$100,000.

--To undertake an intensive study of the biological, physical, and chemical environment of a selected water column extending from the bottom of the sea to the water's surface. This work would detail the distribution, abundance, and inter-relationships of the total pelagic fauna. Eight persons and \$200,000 would be required to support this effort.

--To perform a wide range of biological studies in order to establish baseline information on the marine life now existing at both ends of the proposed Interoceanic Sealevel Canal. Data will be obtained which will permit predictions on the probable biological effects of the mixing of the Atlantic and Pacific biotas, such as that which occurred after the construction of the Suez Canal. This project has strong scientific and economic significance. It would complement the current and planned research effort of the Smithsonian Tropical Research Institute. Ten positions and \$500,000 would permit this study.

--To purchase a spark source mass spectrometer in order to allow Smithsonian scientists to determine trace element abundance in a wide variety of natural and man-made materials. This information is critical to learning age, total composition, and other factors pertinent to precise and accurate identification. This equipment would be used by several Smithsonian bureaus engaged in natural science, history, and technology. Its estimated cost is \$125,000.

Research and Scholarship--Support

The Smithsonian Oceanographic Sorting Center directly contributes to the international oceanographic effort by processing biological and geological collections for scientists throughout the world. The Center separates oceanographic samples into groups of related specimens for identification by specialists; obtains and relates geographical and other data from the collection areas in order to provide maximum environmental information; and records and distributes specimens for study. Since 1963, the Center has received 35,000 samples of marine organisms and sediments from nearly 50 separate programs including large portions of the material from the International Indian Ocean Expedition, the United States Antarctic Expedition, and the Guinean Trawling Survey. Some 15 million specimens have been sorted and more than one-third of these

distributed in 1,000 shipments for identification and study by more than 250 specialists throughout the United States and foreign countries. The demand for sorted specimens and associated data is far ahead of the Center's ability to provide them. Of the 35,000 samples, only about 8,000 have been sorted.

The success and enthusiasm with which scientists and institutions have received the services provided by the Center are shown by the regularly increasing quantities of bulk materials sent to the Center since its establishment and by corresponding increase in the volume of requests for specimens. Production is becoming backlogged and is not meeting research requirements. Advisers and users of the Center also have urged that its operations be broadened to include more extensive coverage of sediments and rock samples and additional biological groups.

Additional technicians and other staff are needed urgently to sort, document, and distribute the increased flow of newly collected materials as well as to start reducing the amount of backlogged collections. To meet the technician need, it is proposed to employ a training supervisor in order to permit the Center to initiate an on-the-job training program. Trainees are expected to be available through various Federal job opportunity programs.

Inherent in the type of support service provided by the Smithsonian Oceanographic Sorting Center is the requirement for the accumulation and dissemination of a large volume of data. Manual methods alone can no longer keep pace with this volume. An adequate automatic processing system must be installed to document incoming specimens and the areas where they were collected; to provide data readily in response to research needs; and to record and control shipments which now approximate four-million specimens a year and which by 1970 will be returning to the Center, following study, at about the same rate. Machine processing systems also will permit the preparation of various analyses of data, including the development of scientifically and economically important distribution charts of identified species.

To meet the above priority needs for the Smithsonian Oceanographic Sorting Center, 14 positions (one oceanographer, one training supervisor, 10 technician sorters, one secretary, and one shipping clerk) with minimum additional supporting funds for travel, supplies, materials, and equipment are required. This represents an increase of \$100,000.

A more optimum level of performance by the Smithsonian Oceanographic Sorting Center would be obtained by the utilization of 3 additional sorters, one supply clerk, and one library clerk;

a more intensified application of automatic data processing to the great amounts of information being amassed; and the purchase of other required equipment; a further increase of 5 positions and \$90,000.

Specification of Increase

To employ 4 oceanographers, 1 project manager, 1 training supervisor, 13 sorters, 14 technicians, 1 shipping clerk, 1 supply clerk, 1 library clerk, and 3 secretaries (\$245,000); personnel benefits (\$18,000); travel (\$60,000); transportation of things (\$30,000); rent, communications, and utilities (\$11,000); other services (\$655,000); supplies and materials (\$91,000); and equipment (\$280,000); a total increase of 39 positions and \$1,390,000.

SMITHSONIAN RESEARCH AWARDS PROGRAM

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship....	0	\$400,000	0	\$400,000	0	\$800,000

The purpose of the Smithsonian Research Awards Program is to support worthy, intramural research projects not funded either by outside agencies or through the regular plan of operations of the Bureaus.

An increase of \$400,000 is requested.

The Research Awards Program was started in fiscal year 1966 for the purpose of financing new or continuing research projects formerly eligible for support from the National Science Foundation. The proposals cover all phases of research in all the Smithsonian scientific Bureaus. The Smithsonian Research Awards Advisory Committee reviews all proposals and recommends that support be given to those proposals having the greatest scientific merit, with careful consideration given to competence of the investigator, the relevance of the research, and the facilities available for the research.

The Research Awards Program permits the expeditious exploitation of unanticipated research opportunities as well as the maintenance and continuity of basic long-term research through essential supplementary support. Further, it serves as an important means whereby scientists of the Smithsonian Institution may engage in collaborative field research projects in timely fashion with colleagues

located in other institutions. Many opportunities for participation in expeditions and other field projects would be lost were it not for the Research Awards Program providing modest but essential assistance to our faculty. The Research Awards Program supplements and increases the opportunities for our scientists to provide basic research results to the mission-oriented Federal research and development agencies.

In fiscal year 1968, researchers submitted 74 proposals for a total budget request of \$863,287. Of this group only 30 proposals were supported from the \$400,000 available for this purpose; 42 highly meritorious proposals were passed over because of lack of funds. A similar condition existed in fiscal year 1967 when 66 proposals were submitted for a total budget request of \$843,565.

The following table depicts some vital statistics about the Research Awards Program.

	<u>Fiscal Year</u> <u>1966</u>	<u>Fiscal Year</u> <u>1967</u>	<u>Fiscal Year</u> <u>1968</u>
Number of proposals received	62	66	74
Number of proposals rated ineligible because of the lack of scientific merit ..	0	11	2
Number of proposals rated eligible but could not be activated because of lack of funds	21	7	42
Number of successful proposals supported	41	48	30

	<u>Fiscal Year</u> <u>1966</u>	<u>Fiscal Year</u> <u>1967</u>	<u>Fiscal Year</u> <u>1968</u>
Total funds requested in all proposals submitted . . .	\$614, 472	\$843, 565	\$863, 287
Total funds provided to successful proposals	\$349, 347	\$400, 000	\$400, 000

In the years preceding fiscal year 1966, the National Science Foundation provided research grants for Smithsonian Institution scientists, as well as to scientists in other Government agencies. This was terminated in 1964. Since that time funds available by appropriation have never reached the level of those previously available from the National Science Foundation. To establish the Smithsonian Research Awards Program at a proper financial level, additional funds are requested.

The amount of \$60, 000 is a priority request to provide financial support for research proposals which have been rated to be of high scientific merit by the Smithsonian Research Awards Advisory Committee.

The amount of \$100, 000 is also a priority request to provide financial support for ongoing research awards projects wherein the researcher is seeking incremental support to complete the research already in progress so that funds invested to date will yield the most meaningful research results.

Since establishment of the "National Science Foundation counterpart fund" opportunities have greatly increased for the productive employment of short-term research support funds. The Smithsonian's

research responsibilities and capabilities continue to grow. Three years prior to establishing this item in the Smithsonian budget the actual dollar value of National Science Foundation grants on hand totaled \$633,000. In a number of cases these represented multiple-year awards. To compensate for this factor, to reflect properly the true extent of past National Science Foundation support, and to provide at least token support for the many increases in nationally significant research capabilities at the Smithsonian, an additional amount of \$240,000 is firmly justified.

Specification of Increase

For other services (\$400,000).

OFFICE OF EDUCATION AND TRAINING

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship ...	3	\$287,000	3	\$145,000	3	\$205,000
Public Enlight- enment	<u>7</u>	<u>55,000</u>	<u>10</u>	<u>70,000</u>	<u>25</u>	<u>180,000</u>
Total	10	\$342,000	13	\$215,000	28	\$385,000

The programs of the Office of Education and Training fall into two broad categories reflecting the major activities of the Institution. The first, and larger, category includes those programs directly related to Smithsonian research in science, history, and the arts. The second category includes those programs directly related to the exhibit and public education functions of its museums. In both cases, the programs of the Office are designed to support and strengthen continuing and fundamental Smithsonian activities and, at the same time, to make the results of these activities more widely available to the appropriate groups.

An increase of \$170,000 and 15 positions is requested.

Research and Scholarship

All of the Smithsonian's programs in education and public enlightenment must rest upon a solid foundation of science and scholarship, based in part upon the program of visiting research appointments, an extension of a practice that is literally as old as the Institution, itself.

Contact with distinguished colleagues broadens and enriches the Institution's own professional staff; contact with graduate and undergraduate students is a source of constant enlivenment. The best evidence of the benefits derived by visiting scholars is the large, and growing, number of those who apply. The National Academy of Sciences, which administers the Smithsonian's post-doctoral appointments in the sciences, continues to report that the ratio of applicants to available positions in the program is the highest in its entire experience.

For a program of short-term consultant scholar-scientist appointments which is specifically aimed at reaching professionals who cannot commit themselves to a full year at one of the Institution's facilities, yet whose interests and skills are of particular value to the various programs of the Smithsonian's research staff, a desirable increase of \$35,000 is requested.

The Smithsonian hopes in the future to involve visiting scientists, scholars, and students more closely in its work through a number of interdisciplinary research conferences and seminars. An increase of \$25,000 is requested to support this program throughout the entire Institution.

Public Enlightenment

The Office of Education and Training requests funds to operate two experimental Neighborhood Museums in rented quarters in two low-income neighborhoods in Washington, D. C. The purpose of this experiment is to provide an environment for open, non-directed

learning through actual contact with real things--which is the unique characteristic of museums--for adults and children who rarely, if ever, use existing museums and other cultural resources potentially available to them. The neighborhood museum is viewed as a doorway to greater use of the city's cultural resources.

Smithsonian museums are educational resources open to the general public for "the increase and diffusion of knowledge among men." While millions of visitors use the Smithsonian annually for pleasure and learning, it is all too clear that large sectors of the urban community do not do so.

This is perhaps not surprising in a city where 262,000 people--or one-third of the total population--live "at little more than subsistence level."

There is abundant evidence that the poor, in any city, are only minimally aware of the range of social and cultural services potentially available to them.

Yet for the poor, the undereducated, and the slow learner, as much as for the college graduate, the contents of museums--things--would appear to have real educational potential.

The proposed Neighborhood Museums will be located in easily accessible, rented space in densely populated, low-income neighborhoods in Washington, D. C. and will be open seven days a week at times most convenient for potential visitors. The program of the museums will include the following:

- Frequently changing exhibits drawn from our collections in art, history, and science. Objects on display will include things which may be touched and disassembled, as well as static exhibits.
- Workshops, clubs, and classes related to the exhibits, including trips and use of resources other than the Neighborhood Museum. The activities will be instituted in response to participants' interests and, to the degree possible, will be organized and run by neighborhood volunteers, with encouragement and assistance by the staff of the museum.
- Exhibits assembled or made by residents of the neighborhood.
- Experimental exhibits, designed to discover effective ways of reaching people not ordinarily attracted by conventional museum programs or to pre-test experimental approaches for ultimate use within the Smithsonian.

The museum's staff will be responsible for encouraging maximum use of the facility.

During the past year, with seed money granted by private foundations, the first of these experimental museums was opened in Anacostia. All indications to date suggest that this experiment in bringing museums to the people will be a signal success, and that it will chart a course that all museums may follow.

To continue this experiment, and to extend it to a second neighborhood in Washington--which will result in considerable economies of operation--the Office of Education and Training requests

an increase to employ staff for two neighborhood museums. Additional amounts for physical facilities and exhibits are requested elsewhere in this budget.

A priority increase of \$75,000 and 9 positions is requested to staff these two neighborhood museums.

An additional increase of \$15,000 and 3 positions would insure a fuller utilization of these museums.

While reaching out to bring new sorts of people to our major museums, the Smithsonian must continue to discharge its responsibility to those who do come. The 35,318 children who took guided tours during the 1966-1967 school year represent only a fraction of those who would come if more tours were available. Although all of these tours were conducted by volunteers from the Junior League, the Smithsonian must train all volunteer tour-leaders and prepare materials for them, and for the children to use. The Institution's present small staff of instructors work with teachers and volunteers, to prepare instructional materials, respond to thousands of mail inquiries, and offer tours and other services in the fields of anthropology, zoology, and American history.

An increase of \$20,000 for this program is requested to employ 3 museum instructors: in art, the history of science and technology, and mineral sciences.

Specification of Increase

To employ 2 neighborhood museum directors, 9 technicians, 3 docents, and 1 secretary (\$102,000); personnel benefits (\$8,000); travel (\$2,000); and other services (\$58,000); a total increase of 15 positions and \$170,000.

OFFICE OF INTERNATIONAL ACTIVITIES

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship	3	\$30,000	3	\$48,000	8	\$375,000
Public Enlighten- ment	0	0	0	0	1	10,000
Administrative and Central Ser- vices	<u>3</u>	<u>30,000</u>	<u>3</u>	<u>43,000</u>	<u>3</u>	<u>43,000</u>
Total	6	\$60,000	6	\$91,000	12	\$428,000

The Office of International Activities develops international programs in traditional fields of Smithsonian interest, especially in such areas of basic research in the sciences and humanities where further advancement of knowledge in this country requires continuing and strong cooperative research programs with other nations.

An increase of \$337,000 is requested for additional staff and related expenses to assist in the development and management of cooperative international projects and to support American-sponsored basic research centers overseas.

Research and Scholarship

This Office develops and supports international research projects in the anthropological sciences and in systematic and environmental biology through its Special Foreign Currency Program. Since this

program's inception in 1965, excess foreign currency grants have benefited some 35 American universities and museums as well as elements of the Smithsonian itself. The Office also administers cooperative programs with Federal agencies or international organizations which help the Institution attain its research objectives. An example is the Pan American Union's Fellowship Program for Latin American scientists at the Smithsonian Tropical Research Institute. In addition, the Office assists the Institution's curatorial and scientific staff in mounting expeditions or research projects and in establishing exchanges of exhibits which involve substantial participation of foreign institutions or inter-governmental negotiations.

Four additional positions and increased travel funds (a total increase of \$31,000) are an essential need in order to manage successfully an increased Special Foreign Currency Program. The administration of this activity is complex, requiring considerable Smithsonian staff assistance to participating American and foreign institutions and the negotiation of international and individual project agreements.

The Institution this year requests an increase of \$270,000 to realize in small measure what has been a Smithsonian goal since Secretary Joseph Henry appointed Smithsonian scholarly agents in foreign countries during the Institution's first years. This goal is the establishment of an international research community with increased study opportunities for American scholars interested in the sciences and culture of other lands.

Modest progress toward this goal was achieved during the latter part of the last century when, for example, the Smithsonian began to contribute through its private funds to the world-famous Naples Zoological Station in order that American scientists might have better opportunities to study the biology of the Mediterranean. More recently, the Smithsonian has contributed to the Charles Darwin Foundation's research station on the Galapagos Islands, which offers indispensable facilities for scientists studying this unique flora and fauna.

The Institution has received many suggestions from Federal agencies and private institutions that it should support, on a regular and more extensive basis, American-sponsored basic research centers overseas that are concerned with Smithsonian fields of study. Typical examples would include the American School of Classical Studies in Athens and the American Institute of Iranian Studies in Teheran, which expects to begin operations this year.

The State Department and the Office of Education of the Department of Health, Education and Welfare have characterized such support as appropriate to the Smithsonian and potentially valuable in terms of supplementing their cultural exchange and foreign area studies programs respectively.

The Institution believes that a grant program to selected American-sponsored basic research centers overseas is justified because:

- All are concerned with disciplines of direct interest to the Smithsonian and all can, therefore, advance the Institution's research interests by providing excellent opportunities for field work or study that cannot be done in the United States.

- None is currently receiving regular support from the Federal Government or the major private foundations. The centers, all of which are consortiums of American institutions of higher learning, exist principally by the subscription fees of their members and for this reason cannot realize their maximum potential for American and host-country scholarship.
- Strengthening of American-sponsored research centers abroad is in the national interest because these centers have an outstanding record of enhancing United States-host country relations. Like the Smithsonian itself, they have gained the confidence and respect of the foreign governments with whom they must deal because they are known as scholarly institutions independent of our foreign policy structure. In effect, they serve as the continuum or base of cultural relations on which political relations must often rest, witness the fact that some have continued operations when United States and host-country relations have been broken.
- Support to the centers shown on the appended list would complement most effectively what the Smithsonian is already achieving through foreign currency grants to similar centers in the PL-480 excess currency countries.

An additional request of one position and \$26,000 would provide a fully acceptable level of staff support, travel funds, and contractual services for the Office of International Activities.

Public Enlightenment

A cooperative program with the Department of State provides for foreign scholars and museum personnel to come to the United States for research or training at the Smithsonian under State Department or other Federal and private international exchange programs. National Museum Act programs also call for the exchange of foreign and American museum professionals. One exchange program officer and \$10,000 is a priority requirement by the Office of International Activities to arrange these exchange-of-persons programs which, on the basis of current experience, will mean programming assistance to over 60 foreign and American grantees a year.

Specification of Increase

To employ 1 exchange program officer, 3 administrative assistants, and 2 clerk-typists (\$42,000); personnel benefits (\$3,000); and to provide for additional travel (\$14,000); other services (\$275,000); supplies and materials (\$1,000); and equipment (\$2,000). This is a total increase of 6 positions and \$337,000.

American-Sponsored Basic Research Centers

<u>Recipient</u>	<u>Purpose</u>	<u>Amount</u>
American School of Classical Studies at Athens (A non-profit study center supported by annual subscriptions from 101 American universities and museums, with libraries, administrative offices, and residential units in Athens.)	To accelerate the School's excavation programs at the Agora in Athens, Corinth, and certain of the Greek Islands, which have long served as the principal training ground for American classical archeologists.	\$60,000
American Academy in Rome (A study center supported by annual subscriptions from 79 American universities and privately endowed fellowships.)	To provide for the excavation of Cosa, one of the earliest and most significant Roman colonies of the republican period, dated from about 270 A. D. Archeological field training for the Academy's graduate students is provided at this site.	30,000
American Research Institute in Turkey (17 participating American universities, with a center in Istanbul and a proposed center in Ankara.)	To continue the excavation of Aphrodisias in southwestern Turkey, a major Greco-Roman city which also has valuable sequences ranging from the Bronze Age to the Byzantine period.	45,000
American Institute of Iranian Studies (16 participating American universities or museums, with a planned center in Teheran.)	To initiate surveys and excavations of Western Azerbaijan aimed at an understanding of the settlement patterns, dispersal of crops, and metallurgy of this area from the earliest Neolithic to the Iron Age.	35,000
Organization for Tropical Studies (17 participating American universities or museums, with an administrative center at the University of Costa Rica and educational facilities and field stations in Costa Rica and Honduras.)	To initiate a comparative ecological survey of various life zones or environmental regimes in Costa Rica. The survey will provide for the participation of American and Latin American graduate students.	100,000
TOTAL		\$270,000

INTERNATIONAL EXCHANGE SERVICE

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Public Enlight- enment	9	\$128,000	9	\$96,000	11	\$115,000

The International Exchange Service is the official instrument for exchange of Government documents and private institution's scientific and literary publications with foreign governments and institutions. The Service forwards over one million pounds of publications annually to governmental and private organizations overseas. In turn, it receives publications from foreign countries for distribution to scientific and educational organizations in the United States. The Service is receiving numerous worthwhile additional requests for assistance in transmitting publications abroad. Examples include: reading materials for the Peace Corps Volunteers and textbooks for use in their school programs; and law, medical, and dental journals for ministers of justice and for universities in the developing countries.

The International Exchange Service requires a priority increase of \$19,000 for additional staff and operating expenses because of an increasing volume of shipments and higher costs of transportation, supplies, and materials.

The additional funds requested are a minimum to continue to provide the service that the Smithsonian is committed to give under treaties, conventions, and international agreements for the international exchange of publications, such as the exchange of United States official documents, the departmental exchange of the Government Agencies, the exchange programs of the universities, colleges, libraries, scientific societies, and other organizations.

Many worthwhile requests are having to be refused. Unless the Service receives the additional funds, it will be forced to reduce further the amount of publications it can accept for transmission in order to remain within its budget. Additional clerks are required to sort, pack, and unpack incoming and outgoing materials and to prepare shipping documents. Costs of transporting publications to the piers in Baltimore have doubled during the past fiscal year, and another increase is proposed. Ocean freight rates have risen 10 percent.

Specification of Increase

To employ 2 shipping clerks (\$8,000); personnel benefits (\$1,000); transportation of things (\$7,000); supplies (\$2,000); and equipment (\$1,000); a total increase of 2 positions and \$19,000.

Office of the Secretary

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Estimate Amount</u>
Administrative and Central Services..	23	\$369,000	23	\$ 332,000	34	\$465,000

The Office of the Secretary provides executive direction, program planning, and review of all programs of the Smithsonian Institution. This Office includes the Secretary, the Assistant Secretary, the Assistant Secretary for Science, and the Assistant Secretary for Arts and Humanities.

An increase of \$133,000 is required to employ 11 additional assistants and secretaries in the Office of the Secretary and provide additional funds in other objects.

The Secretary of the Smithsonian Institution is called upon to serve on many commissions, study groups, and councils. Among the more than 50 groups with which he is currently associated are the American Revolution Bicentennial Commission, the Federal Council on the Arts and the Humanities, the Temporary Commission on Pennsylvania Avenue, the Board of Trustees for the John F. Kennedy Center for the Performing Arts, the National Council on the Arts, the White House Art Committee, and the White House Historical Association. The work involved in each of these committees varies; but the total work for all these groups is significant. The number of visitors to the office, the number of special reports, and the volume of correspondence are increasing. A priority increase of \$13,000 for 2 employees, a secretary and a receptionist,

and related expenses is required to assist the Secretary in directing the work of the Institution and in meeting his official external responsibilities and commitments.

The Equal Employment Opportunity Program, established by Executive Order 11246, requires the Smithsonian to conduct a positive action program which will continue to provide true equality in all Smithsonian employment practices. The program includes a regular evaluation of the effectiveness of the total effort throughout the Institution, implementation of changes designed to eliminate any discriminatory practices, investigation of complaints of alleged discrimination, coordination of agency efforts to assure adequate housing for employees who are members of minority groups, and maintenance of a system to provide confidential, current, and continuing statistical employment information by race and national origin which will help to assure that the objectives of Executive Order 11246 are met. An increase of 2 positions and \$26,000 is requested to employ an administrator and secretary to carry out this program for the Secretary.

The Offices of the Assistant Secretary, Assistant Secretary for Science, and Assistant Secretary for the Arts and Humanities advise and assist the Secretary in planning, implementing, and reviewing the progress of Smithsonian programs. As such, each of these offices has broad and intensive responsibilities for the general direction of specific bureaus and offices and for major functions cutting across organizational lines. In addition, each of these offices must represent the Secretary and the Smithsonian in high-level planning and development

efforts with the Congress, Government agencies, and private organizations. Each of these offices requires additional assistants to help meet a growing administrative workload promptly and thoroughly. A priority need is for \$36,000 and 2 positions, a biologist, and an administrative officer, and related expenses.

Additional funding in the amount of \$58,000 and 5 positions, an administrative officer, an administrative assistant, and 3 secretaries, would bring the staff of the Office of the Secretary to a fully effective supporting level.

Specification of Increase

To employ an Equal Employment Opportunity Officer, 1 biologist, 3 staff assistants, 5 secretaries, and 1 receptionist (\$114,000); personnel benefits (\$9,000); travel (\$4,000); supplies and materials (\$1,000); and equipment (\$5,000); a total increase of 11 positions and \$133,000.

Management Support

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Administrative and Central Services	29	\$432,000	37	\$377,000	56	\$598,000

Management Support provides specialists and services to assist the Secretary and Assistant Secretaries and to provide agency level administrative requirements for the various programs. Management Support consists of the following: Archives, Contracts Office, Internal Auditor, General Counsel, Organization and Methods, Programming and Budget, Secretary's Files, Travel Services Office, and Printing and Duplicating.

An increase of \$221,000 and 19 positions is required for management support. Of this increase \$17,000 is required to reimburse the Employees' Compensation Fund as invoiced by the Department of Labor for job-related injuries in fiscal year 1967. The above amount includes \$50,000 to fund automatic data processing needs of general applicability to the program and administrative units of the Institution.

Archives

The Smithsonian Institution Archives is responsible for the selective preservation of the correspondence, manuscripts, and other records of the Institution. It retrieves all material of lasting value from the operating files and collections of the Institution; arranges and preserves this material; and makes it available to the

Smithsonian staff and qualified students and scholars from other institutions.

Much of the archives consists of the correspondence, field notes, and journals of explorers and others who contributed to the National Collections, performed research upon them, or were otherwise directly concerned with the establishment and development of the Institution. The Smithsonian must keep these archives and manuscript collections as records of the collections and of the history of the Smithsonian and must make them readily available to scholars.

The history of the Smithsonian, its expeditions, and collections in the 19th century is essentially the history of American science in that period. One of the outstanding early American scientists, Joseph Henry, was also the First Secretary of the Smithsonian Institution. His correspondence with other scientists is an invaluable history of research during the period. This extensive collection of correspondence is being edited for publication. Scholars also have made extremely profitable use of other research materials in the Archives, for example, William Goetzman's Exploration and Empire, the 1967 Pulitzer Prize for history, and Morgan B. Sherwood's Scientific Exploration in Alaska (1865-1900).

A priority increase of 3 positions and \$34,000 is requested for expanding the small program of preservation and restoration of the historical manuscripts and archives, for developing a computer cataloging system to aid in the retrieval of information contained in the documents, and to meet the increased demand for reference and research service.

An additional increase of 3 positions and \$25,000 is requested to establish overall supervision of the records and record-keeping of the Institution, to establish comprehensive records management and disposal schedules, to microfilm manuscript material in danger of deterioration, and to provide security copies of precious documents.

Office of the General Counsel

The Office of the General Counsel advises the Secretary and other officials of the Smithsonian Institution on all legal matters pertaining to the administration and operation of the Institution's museums and programs.

The General Counsel's office needs a research assistant. This research assistant would devote his time to studies which are of importance to the long-range plans of the Institution. Examples are studies of the taxation laws of all the states as they affect educational institutions, property, and problems in international oceanography.

A priority increase of 1 position and \$8,000 is requested.

Internal Auditor

The Internal Auditor supports the Smithsonian's continuing efforts to assure sound financial management in all its aspects by means of on-site reviews and other techniques of fiscal analysis.

The Foreign Currency Program requires that the internal auditor have an assistant who can specialize in this facet of the Smithsonian's program. Most of the audit function will be done in Washington, but at least two trips a year would be necessary to audit at foreign posts.

A priority increase of 1 position and \$12,000 is needed to conduct foreign currency audits.

Organizations and Methods

The Organization and Methods Division is responsible for developing, coordinating, and maintaining a management program to assist in the continuing development of sound business administration and management improvement programs.

This Division develops organizational, functional, staffing, and flow charts, procedural manuals, and other administrative issuances; makes studies and special surveys; analyzes management problems and recommends solutions; provides management advisory services; and maintains the forms management program.

Work in the forms activity is seriously backlogged and restricted. To support adequately the work and objectives of every major program and all technical and administrative units, their specialized needs and mandatory deadlines must be met. Increased automatic data processing applications demand procurement of custom-designed new forms and conversion of obsolete manual-type forms to computer capability. Full compliance with the Government Printing Office regulations on submission of detailed, technical specifications for data processing forms cuts heavily into the available time of the employee responsible for the forms program.

Graphic and clerical help is essential for forms layout, preparation of copy for printing, maintenance of the forms control system, and typing of Government Printing Office requisitions and

specifications. The professional research staff's use of program-oriented forms to support their work has measurably increased, and printing costs and supplies are higher.

A priority increase of 2 positions and \$19,000 is requested to employ clerks and provide funds for printing, supplies, and materials.

Requests for assistance received by Organization and Methods from staff members and units throughout the Smithsonian cannot be met within a reasonable time. Surveys of areas identified as needing review and analysis must be deferred. Training of office assistants on current, revised, or new procedures cannot be undertaken despite obvious need and repeated requests. Development, preparation, and issuance of policy, procedure, and operations handbooks, manuals, guidelines, and memoranda are seriously backlogged.

A trainee analyst is required to carry out repetitive projects, to be responsible for routine assignments, and to support the work of the senior analysts.

An increase of 1 position and \$7,500 is required to employ a trainee and provide for his equipment.

Office of Programming and Budget

The Office of Programming and Budget is working on the development and application of Planning, Programming, and Budgeting principles and techniques to the needs of the Institution. The senior staff of the Institution is continuing to share actively in these efforts but it is essential to expand the nucleus of the supporting staff to enable more systematic and thorough program analyses.

The Director of Programming and Budget serves within the Institution as an adviser to the Assistant Secretary and bureau and office directors in regard to matters of budget and programming. The Director needs a secretary to assist him. A priority increase of 1 position and \$8,000 is requested.

Travel Services Office

The Travel Services Office provides centralized assistance to scientists, historians, and other employees by assisting in developing their travel plans; making reservations for transportation and accommodations; obtaining timely delivery of tickets; preparing and issuing complete travel itineraries; and providing essential regulations, instructions, trip report forms, and other pertinent materials. The office, by centralizing travel services, replaces the making of travel arrangements in virtually every office of the Institution where lack of expertise resulted in unsatisfactory and uneconomical travel arrangements, as well as the costly diversion of professional and scarce clerical-staff time. A priority increase of 1 position and \$6,000 is requested.

Printing and Duplicating Section

The Printing and Duplicating Section provides for all duplicating requirements of the Institution. Included are office memoranda, manual issuances, forms, news releases, and other administrative issuances, as well as materials required by the research, curatorial, and exhibits activities.

It is desirable to combine the two printing activities, the Institution's Print Shop (linotype composition and letterpress printing) and the Duplicating Section (offset printing). These two printing activities are now under separate management. A printing manager would provide administrative and technical supervision, and would plan and schedule work of both, resulting in more efficient handling of an increasing workload. A clerk-typist is requested to assist the Printing Manager in processing requisitions, ordering printing materials and supplies, arranging for the delivery of completed orders, and performing other support duties. Equipment is required also to support this position.

A priority increase of 2 positions and \$16,000 is requested.

Skilled employees now devote much time doing work that could be performed by lower-grade employees. The employment of 3 machine operators not only would free higher-salaried employees for work requiring their skill, but also would reduce the overtime now required by this unit.

This Section also performs the addressing and mailing of the Institution's mass mail. An additional addressograph operator is needed to handle the increased workload.

An increase of 4 positions and \$18,000 would enable the above unit to operate at maximum production.

Specification of Increase

To employ a records manager, an internal auditor, a research assistant, a travel assistant, a management trainee, an archivist, a printing manager, and 12 secretaries and clerk-typists (\$108,000); personnel benefits (\$24,000); travel (\$1,000); rent, communications, and utilities (\$1,000); printing and reproduction (\$5,000); other services (\$69,000); supplies and materials (\$4,000); and equipment (\$9,000); a total increase of 19 positions and \$221,000.

Fiscal Division

<u>Program Category</u>	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Administrative and Central Services.....	21	\$294,000	25	\$352,000	31	\$461,000

The Fiscal Division is responsible for the management of the funds of the Smithsonian Institution. This includes payroll, allotment accounting, auditing, reporting, and financial counseling.

A total increase of \$109,000 is requested for 6 positions, additional computer time, and the rising cost of postage indicia mail.

The continued expansion of the many Smithsonian Institution programs has resulted in a corresponding increased workload in the Fiscal Division. Fiscal clerks are needed to cope with the extended volume of payroll, accounting, auditing, report and counseling work.

Cost of postage indicia mail is constantly rising as a result of increased activities at the Institution and a greater influx of letters from the general public, students, scholars, and educators; and from research, museum, cultural, historical, educational, community, and similar organizations seeking information, advice, and assistance.

Acquisition of a new and larger capacity computer will require reprogramming of the payroll and all other computerized functions.

A priority request of \$47,000 and 2 positions is required.

An additional request would enable new and improved reports to be produced by automatic data processing. This request is for 4 positions and \$62,000.

Specification of Increase

To employ 2 programmers, 1 accountant, 2 allotment clerks, and 1 payroll clerk (\$45,000); personnel benefits (\$4,000); rent, communications, and utilities (\$30,000); other services (\$26,000); supplies and materials (\$3,000); equipment (\$1,000); a total increase of 6 positions and \$109,000.

Information Systems Division

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship	0	\$20,000	3	\$39,000	6	\$112,000
Reference Col- lections.	1	15,000	2	28,000	7	118,000
Administrative and Central Services.	2	61,000	3	43,000	28	331,000
Total	<u>3</u>	<u>\$96,000</u>	<u>8</u>	<u>\$110,000</u>	<u>41</u>	<u>\$561,000</u>

The Information Systems Division is responsible for developing and applying automatic data processing systems to increase information handling capabilities in research, management of collections, and administrative work. In addition, the Division provides data processing advice and training to the personnel of other museums.

Smithsonian scientists and historians are spending an unnecessary amount of time on subprofessional duties required to locate and apply information needed for their research and to answer questions from the public and other researchers. Studies of how to use a computer to assist staff professionals in using vast stores of specimen and object-related data have been in progress for several

years. Reviews of greater workloads in the administrative area found that almost every organizational unit is handicapped by the lack of computer services with associated analysts and programmers. For instance, there is a demonstrated need for computer services and programming support in the fiscal area. Applications to allotment accounting and payroll need to be developed and maintained to meet continuously changing data recording and reporting requirements, including those to outside agencies. Similarly, a study of how to make the Smithsonian Libraries more responsive to the needs of scientists, researchers, and general public users shows that reference, cataloging, and circulation aids involving a computer offer the most efficient means of making the Library more effective.

An increase of \$451,000 is requested for systems design and programming staff and computer usage required to implement a diversity of work not now being accomplished in scientific analysis, data storage and retrieval, and administrative programming.

Research and Scholarship

Smithsonian scientists in the Museum of Natural History, Radiation Biological Laboratory, and elsewhere have a strong need for applying mathematical and statistical approaches to their research. The growing usefulness of mathematical modeling requires a capability in correlation and regression analysis and other techniques. The volume

of data or computations involved, however, frequently discourages use of these tools by essentially manual means.

A priority requirement is for the development of computer programs to provide multivariate statistical analysis. These programs will be used by Smithsonian scientists as research aids in classifying plants and animals by numerical taxonomy. One programming analyst is required, \$13,000.

A concerted data processing effort involving statistical analysis to perform significant tests on samples under study and to correlate measurements of these samples; to provide other scientific programming for the science bureaus and the Conservation Analytical Laboratory; and to furnish data reduction in support of the Radiation Biology Laboratory's studies requires an additional 2 programmers and substantial computer services; a total of \$60,000.

Reference Collections

The Smithsonian is the repository for the National Collections of specimens and objects in the fields of art, history, science, and technology. Its resources also include extensive library and archival materials in these fields. Manual methods of maintaining data associated with these collections and searching for answers to specific questions are inadequate because of the large volume of data and because inquiries cut across subject matter, time periods, and geographic areas. For instance, frequent inquiries are received by the Museum of Natural History from the Federal Bureau of Investigation

and other law enforcement agencies regarding the identification of bones or portions of bones. Information is desired on age, sex, and possible cause of damage or defects. Adequate response to these questions requires that the sample be manually compared with the reference collections and matched with information appearing in various card and other files. At present, this is a tedious and time-consuming process. The development of innovative computer-supported systems will enable the Smithsonian to manage its information resources and to respond to inquiries with speed, accuracy, and completeness.

There is a priority need of 4 programmer-analysts and \$42,000 to develop computer applications for the following collection-related activities: cataloging and circulation aids for the library; an information storage and retrieval system for a catalog of American portraits for the National Portrait Gallery; a Pacific Islands bird population and banding return system for the Museum of Natural History; a data storage and retrieval system for tumors in lower animals, also for the Museum of Natural History; and similar projects.

A higher level of support, in the amount of 1 additional programmer position and greater computer services, a total of \$48,000, would satisfy a wide range of other identified needs in the management of reference collections.

Administrative and Central Services

Sound administrative and financial management demands that the Institution explore and apply computer techniques to its administrative

and business tasks where it is demonstrated that such applications will increase work output, lower unit costs of work, or permit capabilities, such as reports, not otherwise feasible.

There is a priority need for 6 positions (3 programmers, 2 clerical employees, and 1 keypunch/verifier supervisory operator) and a total of \$55,000 to accomplish the following plan of work:

- to develop a computerized allotment accounting system based on parallel processing of data coming from several sources. At present, this data flows serially and thus delays the feedback of reports and other information to users.
- to develop a personnel information system responsive to needs for data on wages and salaries, education, and abilities of employees.
- to develop a procurement and inventory control system to assist in supply management.

This priority funding also will provide essential clerical and supervisory support for the Division and additional travel funds.

The funding that would be required to support other known needs is an additional 19 positions (1 computer methodology researcher, 1 manager of computer operations, 2 shift supervisors, 2 programmers, 3 computer operators, 2 control clerk/tape librarians, and 8 keypunch/verifier operators); and \$233,000 including computer services. These funds would be deployed to develop computer systems for updating and improving payroll systems; resource planning and budgeting; improving the nonexpendable property management system;

increasing the effectiveness of mailing lists; strengthening keypunch, data preparation, and computer operations; and developing better computer techniques of wide or general applicability to Institution operations.

Specification of Increase

To add 33 positions (\$251,000); personnel benefits (\$18,000); travel (\$5,000); rent, communications, and utilities (\$146,000); other services (\$16,000); and equipment (\$15,000); a total increase of 33 positions and \$451,000.

Smithsonian Institution Libraries

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Reference Collections	41	\$456,000	44	\$535,000	68	\$894,000

The Smithsonian Institution Libraries perform an indispensable role in providing library and related information services to the research, exhibit, and educational programs of the Smithsonian. Through the collection--one of the oldest and most carefully selected natural science and historical library collections in existence--the acquisition program, and reference services, the Libraries contribute to the quality of research, conserve research staff time by expediting acquisitions and reference services, and measurably heighten the creativity and productivity of the scientists and the scholars at the Smithsonian.

The Institution's responsibility to assemble and maintain national reference collections in natural science, history, and art necessitates a library system of equivalent scope. The quality of decisions required for the management of collections depends directly upon appraisals of the present state of knowledge in relevant fields. It is the objective of the Smithsonian Libraries to make such appraisals possible through literature-based information collections organized primarily for this purpose, as well as to serve the research needs of members of the professional staff.

An increase of \$359,000 will be used to increase the acquisition rate of books and periodicals; to provide an associate director position; to develop a systems analysis capability; to reorganize the library holdings; and to improve the service capabilities of the library system.

Acquisition of Books and Periodicals

The Institution's responsibility to maintain documentary resources has been steadily growing, as with the recent addition of space exploration to the responsibilities of the National Air and Space Museum, the increase in the number of parameters governing the classification of organisms, or the expansion of its major activities in art. But funds to acquire books and serial publications have not kept pace with needs. In fiscal year 1968, the Libraries will be able to purchase only 2,500 serials and 3,500 books. This level of acquisitions is not in balance with needs of the scientific staff and many requests for essential research materials will not be filled.

The urgency of this situation is accentuated further by changes in the total pattern of information activities which affect the Institution both from within and without. To an increasing extent, more channels and formats of information communication are being utilized by scholars in more varied network patterns tailored to suit the needs of individual disciplines. Libraries must cope with an ever-widening array of kinds of publications in addition to books and journals, including such items as technical reports, "letters" and announcement journals, journals in microphotograph editions, bibliographies on magnetic tape, and trade catalogs.

For fiscal year 1969, an additional \$122,000 are requested to increase the acquisition rate of books, periodicals, and other essential library materials in order to acquire information in all areas of the Smithsonian Institution's activities. Of this amount, \$42,000 represent a priority increase.

Program Management

In addition to its response to an increasing complexity of communication patterns, the Smithsonian's library program has been forced to accommodate an increasing diversity of research methods in the disparate disciplines it encompasses. Branch libraries and office collections of literature have been created to enhance the flexibility of this accommodation. These changes in systems of library collections and services result in problems of management which now necessitate strengthening the administration of the reference systems and their supporting services. A priority request is for an associate director and a secretary, a total of \$25,000.

Systems Analysis Capability

The Smithsonian's unique collections of diverse information resources require that the Libraries develop the capacity for systems study. Its scholars and scientists are concerned about information itself and not the media in which it is stored. The Smithsonian's literature resources must be fully integrated with the reference collections of objects. No technology exists for the integration of such resources and the operation of services based on them, nor is it likely to develop without a combination of research and reference activities, such as

are present within the Smithsonian. The Institution must take action, therefore, and develop its own capability through research and development to devise integrated channels of access to information residing in various types of collections. The output of this research and development effort will direct the reorganization of the Libraries' collections. It will also give the Libraries the further capability of utilizing the benefits of other library automation projects such as those of the Library of Congress and the National Library of Medicine.

An essential requirement for the Libraries is the provision of a research director and supporting contract funds (a total of \$48,000) for application to research projects in a suitable area related to the National Collections. Of this total, 1 position and \$30,000 represent a priority request.

Reorganization of the Libraries' Holdings

The organization of the holdings of the Libraries continues to be brought more into line with the responsibilities stated above. Present level of funds restricts this effort to procedures not fully suitable to the Smithsonian's situation. For example, facts essential to the complete documentation of museum objects are not covered by Library of Congress cataloging of reports. The significance of the localities of origins of objects is an essential often overlooked by abstracters and indexers outside the Smithsonian.

An increase of 12 catalogers and library assistants and \$96,000 is requested to broaden the scope of the reorganization project. This level of funding would permit virtually complete integration of the

Libraries' collections with the National Collections within eight years. Of this total need, a priority request is for 8 positions and \$59,000. This would phase the program over a 12-year time span.

Improvement of Services

Library technology provides little guidance on objective standards as to what constitutes adequate staffing to maintain collections and provide reference support. Workload experience, however, demonstrates a clear need to reinforce the Libraries' service and collection maintenance staff. Workload in the area of answering routine reference questions increased by over 30 percent in fiscal year 1967. The unique reference collections have attracted users from many Federal agencies and the public. Increased cooperation among research libraries, fostered in part by repeated emphasis among information panels and committees on the development of national networks of libraries, continues to encourage other organizations to direct a growing number of requests for information and publications to the Smithsonian Libraries. A reference librarian, 8 technicians, additional funds for travel of the professional librarians, rental of photocopying equipment, and binding services are requested. This need represents an increase of \$68,000; of which 3 positions and \$27,000 are a priority request.

Through the library system-development program, the Institution acknowledges the need to make continuing studies of service standards, changing the Libraries' staff assignments as the criteria for performance measurement are refined. The Institution Libraries conduct this study with an awareness of how badly such information is needed by the library world as a whole. The Smithsonian is committed to manage and

develop its Libraries in the tradition of service to the library profession as well as toward more effective means of meeting its internal responsibilities.

Specification of Increase

To employ 1 associate director, 1 systems designer, 1 supervisor of the reorganization project, 7 catalogers, 1 reference librarian, 12 library assistants and technicians, and 1 secretary (\$173,000); personnel benefits (\$13,000); travel (\$3,000); transportation of things (\$1,000); rental of photocopying and other equipment (\$5,000); binding of books and periodicals (\$10,000); contract funds for application to research projects (\$32,000); purchase of periodicals and other materials (\$55,000); and purchase of books (\$67,000); a total increase of 24 positions and \$359,000.

Division of Performing Arts

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Public Enlight- enment	5	\$70,000	5	\$59,000	9	\$193,000

The Division of Performing Arts plans and conducts seminars, special events, and demonstrations of folkcrafts, music, ethnic dance, folksong, theater, and other arts related to the Smithsonian Institution's research, exhibitions, and collections in the fields of cultural history and ethnology. These events, some of which have been conducted for a number of years, enhance the viewers' understanding and pleasure and give additional meaning to the exhibits of musical instruments, handcrafts, life in the American past, and the native American cultures.

An increase of \$134,000 and 4 positions is requested for this Division.

The Division of Performing Arts provides professional skills to assist the museum divisions in coordinating their plans for special events and performs research and surveys to obtain the best participants. The Division makes arrangements with performers and stages performances. An example is the Festival of American Folklife which was viewed by 431,000 persons. This event included many of the best remaining craftsmen, musicians, singers, and dancers representing old patterns of life. A concurrent conference of university and museum scholars was concerned with the preservation

of fast-disappearing elements of our community crafts and traditional arts. This program will be an annual event.

Another successful event was the performance at the Smithsonian of two long-established and famous European puppet theaters. The collecting of puppets and the study of puppet theater have been conducted by the Smithsonian as part of a basic anthropological research function for decades. Few art forms are as revealing in the comparative study of other cultures and few performance media are as neglected. As a means of presenting concepts of culture of other societies, continued performance by puppet theaters visiting the United States are deemed of great importance.

A priority increase of \$96,000 and 4 positions is requested to allow the Division of Performing Arts to continue to expand presentations of pleasure and instruction to the public.

The funds will be used to perform the field work and research required to identify, evaluate, select, and obtain the required performers; to produce annual programs of significance and scope; and to make the necessary arrangements, including the design and presentation of the events.

Research and surveys must be accelerated in order to salvage and preserve much of our traditional visual and oral literature and to seek out and record the rapidly dwindling remains of an important sector of our cultural heritage.

The American Educational Theater Associate and the American National Theater and Academy have asked the Smithsonian Institution

to join in establishing a National College Drama Festival to recognize the 10 best college play productions, annually. To participate in planning and to assist in production, management, and associated educational programs, an increase in funds for contractual services is required.

The Smithsonian Institution building with its distinctive architecture is both an historic period building and a landmark of the history of science and culture in America. It is one of our outstanding attractions for Mall visitors. By 1969 the building will be lighted and described in a son-et-lumiere (light and sound) production which will be an additional experience for the visitors who come to the museum during the evening hours of the summer season. Funds will be required to operate the production, to make on-site inserts on the taped history of the building, to replace equipment, and to employ engineering services.

An additional request of \$38,000 would enable the Division of Performing Arts to assist the American Educational Theater, to make studies in the American Esthetic Tradition, and to produce the son-et-lumiere presentation.

Specification of Increase

To employ 2 presentation assistants and 2 clerk-typists (\$20,000); personnel benefits (\$1,000); travel (\$5,000); other services (\$96,000); supplies and materials (\$2,000); and equipment (\$10,000); a total increase of 4 positions and \$134,000.

Personnel Division

Program Category	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Administrative and Central Services	16	\$259,000	18	\$241,000	22	\$306,000

The Personnel Division provides specialists in employment, position classification, employee relations, employee training, and salary and wage administration. The Personnel Division supports all facets of the Smithsonian's varied programs and also administers the Health Services Unit.

An increase of \$65,000 and 4 positions is requested for fiscal year 1969.

The request is based on the expanded programs of the Institution, all requiring professional personnel management and services. The further development of the employee training and development program is essential to maintain an acceptable level of accomplishment. A qualified training specialist to provide adequate in-house training and counseling must be added. It is planned to provide training opportunities for selected qualified employees which will enable them to advance in certain non-professional assignments as museum technicians and exhibits aids. Increased emphasis on supervisory training is required. A priority increase of \$20,000 and 1 position is requested for this program.

The Institution maintains health units for employees and visitors. The Institution has an Executive Health Program which offers annual physical examinations to bureau directors and other key personnel. A priority increase of \$2,000 would allow this Program to be expanded.

Minimal health services are required on the south side of the Mall for employees and visitors to the Arts and Industries building, the Smithsonian Institution building, National Air and Space Museum, and the Freer Gallery of Art. A single facility for this complex is proposed in the Arts and Industries building. An increase of \$7,000 would provide for this new first-aid facility and 1 nurse.

Additional clerks are needed to maintain personnel records of all Smithsonian Institution employees, process requests for personnel actions, provide counseling assistance to employees in the selection of health benefits programs and on other matters, and prepare regular statistical and other reports for submission to the Civil Service Commission, the Bureau of the Budget, Congressional Committees, and for management use within the Smithsonian. A priority increase of \$12,000 and 2 positions is requested.

The Executive Branch has expressed concern that there appears to be a lack of compatibility among computer systems being used in the various agencies of the Government. As a result, steps are being taken to develop a single system for compiling and maintaining personnel records. Within the year the Smithsonian will be expected to provide regular statistical information on all employees to the Civil

Service Commission for their central file. A priority request of \$14,000 is requested to prepare this information.

In addition, there is a need to provide specific statistical information on members of the Institution's professional research staff for use by the Office of the Secretary. Since the present staff is unable to prepare the necessary data input, an additional request of \$10,000 is requested.

Specification of Increase

To employ a training officer, a nurse, and 2 personnel clerks (\$30,000); personnel benefits (\$2,000); travel (\$3,000); rent, communications, and utilities (\$24,000); other services (\$5,000); and supplies and materials (\$1,000); a total increase of 4 positions and \$65,000.

Photographic Services Division

Program Category	1967		1968		1969	
	<u>Appropriation</u> <u>Pos.</u>	<u>Amount</u>	<u>Appropriation</u> <u>Pos.</u>	<u>Amount</u>	<u>Estimate</u> <u>Pos.</u>	<u>Amount</u>
Research and Scholarship.	9	\$104,000	9	\$99,000	14	\$143,000
Public Enlighten- ment.	<u>9</u>	<u>105,000</u>	<u>9</u>	<u>99,000</u>	<u>11</u>	<u>115,000</u>
Total	18	\$209,000	18	\$198,000	25	\$258,000

The Photographic Services Division provides professional photography services to support Smithsonian programs of research, documentation and conservation of collections, exhibition, education, training, publication, and public service.

An increase of 7 positions and \$60,000 is requested to provide the level of support required by other units.

Research and Scholarship

The services of the Division are widely used for research material purposes, requiring specialized handling of rare and priceless collections. The photographers must work closely with scientists to provide detailed support. With the increase in research activities the Division is receiving an overwhelming number of requests. At the same time the requirements and complexities for detailed work are increasing.

Two additional photographers are requested to eliminate the present work request backlog of 786 orders consisting of 16,788 negatives and 52,588 prints. This is a priority increase of 2 positions and \$23,000. An additional increase of 3 positions and \$21,000 is requested to reduce the present 3-months' delay in filling new requests.

Public Enlightenment

Increased services are required to provide support for exhibitions. Increases are requested to provide 1 position and \$4,800 for the photographic laboratory in the Museum of History and Technology, 1 clerk-typist for the photographic laboratory in the Arts and Industries building, and \$1,000 for increased travel of photographers to field stations. This is a total priority increase of 2 positions and \$16,000.

Specification of Increase

To employ 5 photographers, a technician, and a clerk-typist (\$38,000); personnel benefits (\$4,000); travel (\$1,000); other services (\$4,000); supplies and materials (\$7,000); and equipment (\$6,000); a total increase of 7 positions and \$60,000.

Smithsonian Institution Press

<u>Program Category</u>	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship .	18	\$565,000	20	\$579,000	24	\$694,000

The Smithsonian Institution Press is a primary agent for the communication of the results of the Institution's research and scholarship programs. It issues numerous research studies in 10 active science and history series. It produces catalogs and guides that document and supplement special and permanent exhibitions. It publishes popular pamphlets, information leaflets, and other materials that describe and illustrate items in the National Collections and receive wide circulation. Responsibilities of the Press include the approval and editing of manuscripts, designing publications, arranging printing, and distributing the completed works.

An increase of \$115,000 is needed for additional printing funds and clerical and technical support personnel. This increase will eliminate a backlog of manuscripts and meet an anticipated higher flow of manuscripts and illustrations submitted for publication.

Publication is a consequential extension of research. Support of research is wasted if that research goes unreported to the scholarly community and uninterpreted for the general public or is

received too late for use. This is particularly true of Smithsonian Institution scientific research results which are typically basic data of primary necessity to the advancement of applied research in Federal agencies, universities, and industry. The requested increase will be devoted largely to the publication of research papers and monographs.

At present, almost 2,000 manuscript pages with illustrations await assignment to editors. Many of these manuscripts are several months old. In fiscal year 1968, a total manuscript workload of over 15,000 pages plus illustrations is expected in the fields of natural history, anthropology, history, technology, astrophysics, aeronautics and astronautics, and art. Almost 17,000 pages are forecast to be submitted to the Press for publication in fiscal year 1969, an increase of 10 percent over the current year. This forecast is based on a study of the increased professional research staff and their higher per capita productivity.

The estimated essential additional cost of printing this manuscript workload at the Government Printing Office is \$70,000. This cost also reflects the greater number of copies that must be printed to meet public demands and higher printing costs. The Press will continue to obtain maximum economies in composition and printing costs wherever feasible. This includes substitution of linotype for monotype, use of typewriter composition instead of set type for listings and tables, and use of offset printing instead of letterpress

printing when commensurate with the requirements of high quality results. Some \$6,000 were saved by these techniques in fiscal year 1967. Similar economies are expected to offset cost increases for labor and materials in 1969.

Additional clerical personnel are essential to cope with the increased research manuscript workload. Presently, there are only one secretary and one clerk-typist to support the entire Press professional staff engaged in direction, editorial, design, and production work. This forces the professional staff to perform many routine clerical and administrative tasks well below their grade levels. The most immediate staffing need is for an additional clerk-typist in the Director's office and a clerk-typist in the Editorial Section. The increased productivity of the professionals resulting from additional clerical support will permit the Press to handle the additional manuscript workload indicated for fiscal year 1969. Two positions and \$84,000 are required to meet the above priority.

Other needs are strongly felt by the Press. An increased volume of research papers published by the Smithsonian Institution staff in outside scholarly journals will result in additional costs for page charges and reprints. More materials such as handbooks, guides, and manuals must be printed. A full-time indexer is required to prepare name and subject matter indexes for research publications. This technical detail now is frequently done by the

authors at the cost of their research and curatorial time. An additional distribution clerk is required to permit the Press to keep pace with the greater number of titles and a stepped-up volume of requests from scholars, libraries, and the general public. These needs can be met by two additional positions and \$32,000.

Specification of Increase

To employ 3 clerks and 1 indexer (\$21,000); personnel benefits (\$2,000); printing and reproduction (\$90,000); other services (\$1,000); and supplies and materials (\$1,000); a total increase of 4 positions and \$115,000.

Office of Public Affairs

<u>Program Category</u>	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Public Enlighten- ment.....	11	\$109,000	11	\$121,000	22	\$257,000

The Office of Public Affairs informs museums, universities, public agencies, individual scientists, historians, writers, newspapers, magazines, and the public of Smithsonian objectives and projects in history, science, and art. It works with Smithsonian scientists and historians to provide announcements of research, seminars, exhibitions, and special events. It prepares and issues to the public a monthly program of events of unusual interests. The Office widens the usefulness of Smithsonian resources to the country by cooperating with writers, authors, and reporters to give them access to Smithsonian staff members and collections in order to aid them in informing their readers on Smithsonian resources, plans, and accomplishments. It prepares orientation brochures and building guides for the millions of visitors to the Smithsonian. The Office of Public Affairs also operates an educational library of photographs and motion picture films used by other institutions throughout the country as well as in a weekly public film-lecture program at the Smithsonian Institution.

In its dual public role as an attraction to visitors and a source of information to inquirers near and far on all manner of topics, the Smithsonian by its very nature does provide unique public services to the nation. The Office of Public Affairs' responsibilities reflect the breadth and diversity of the Smithsonian across a wide range of essential and demanding functions. These functions are central to the overall task of diffusion of knowledge to a national public that each year grows better educated and informed, becomes more deeply concerned in the broad areas of knowledge with which the Smithsonian's component bureaus are concerned, and, consequently, demands and expects first-rate performance from the Institution in the discharge of public duties and services.

In order to provide basic informational services in response to public demands, 2 information specialists, 1 for scientific subjects and 1 for art subjects, need to be added.

Preparation, including writing, typing, editing, layout, and proofreading, of building guides, the monthly calendar of events, and a monthly newspaper requires the addition of a clerk. The growing volume and scope of press requests and telephone and letter inquiries have added to the workload to the extent that another clerk-typist is needed.

To provide photographic coverage for news releases, publications, and special events, a photographer is necessary.

A modest program in the production of educational and documentary films has been undertaken. In order to develop this program to meet known public requirements, it is necessary to employ an assistant.

The primary functions of the Institution to diffuse and exchange knowledge and to stimulate scholarly achievement require the maintenance of a vast range of communication and contact with institutions and individuals throughout the world. A mailing list specialist is required to coordinate these activities and maintain adequate records including constant updating of lists.

A priority request of 7 positions and \$80,000 is required to meet the above mandatory needs.

Information leaflets, maps, one-sheet guides, and other orientation materials are essential to public understanding and enjoyment of exhibits. Thousands of requests from school children and other can be effectively and efficiently handled by the production of carefully planned and meaningful brochures. The program requires a central focus to provide catalysis, coordination, editing, and general assistance. This Office proposes to establish and maintain uniform production and design standards in cooperation with the bureaus to meet this need. To provide this function at a basic level requires a writer-editor and a clerk-typist.

The many and diverse programs and activities of the Institution include a large and increasing number of seminars, symposia, public and press events, ceremonial functions, and activities such as demonstrations and performances. An assistant for special events is required.

The present staff of the photographic library is unable to reply promptly to the many requests from the public, educational institutions, and the press for photographs and at the same time incorporate into the library system existing photographs as well as photographs of new objects and exhibits. The addition of a clerk-typist would enable the library to continue reducing the request backlog and to use effectively new materials.

A further increase of 4 positions and \$56,000 would permit this expanded level of effort.

Specification of Increase

To employ 2 information specialists, an assistant for film and broadcasting, an assistant for special events, a photographer, a writer-editor, a mailing list specialist, and 4 clerk-typists (\$73,000) personnel benefits (\$6,000); rent, communications, and utilities (\$1,000); printing and reproduction (\$17,000); other services (\$27,000); supplies and materials (\$6,000); equipment (\$6,000); a total increase of 11 positions and \$136,000.

Supply Division

Program Category	1967		1968		1969	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Administrative and Central Services	17	\$286,000	20	\$275,000	25	\$348,000

The Supply Division procures supplies, materials, contractual services, and equipment essential to the accomplishment of research, curatorial, exhibition preparation, and other Smithsonian goals. It stocks and issues office, laboratory, and other supplies and materials required in daily operations. It operates an active property management program, obtaining excess property items in lieu of new procurement whenever possible. The Division maintains property records and takes periodic inventories to assure adequate control, accountability, and effective utilization of all equipment items.

An increase of \$73,000 is required to employ additional personnel to process the increased volume of purchase and contract transactions and to receive deliveries and issue materials away from the central office; and to provide essential supplies, materials, and repair services for approved Smithsonian programs.

The work output of the Supply Division in terms of the number of purchase orders, contracts, imprest fund uses, and other transactions increased by 52 percent in fiscal year 1967 over the previous year. This work was accomplished with only a 35 percent increase in the number of hours worked by procurement personnel as a result of

improved methods, including paperwork reductions and telephone ordering systems. Although further streamlining techniques will continue to improve productivity, it is anticipated that the procurement workload will outpace available manpower in fiscal year 1969. Two additional clerk typists will assist materially in handling the procurement workload.

This increasing workload is a necessary part of the Smithsonian's continuing improvement in the quality and quantity of its services to the public in exhibits, research, and education. In particular, the accelerating activities of the National Collection of Fine Arts and the National Portrait Galleries in their new building, to be opened in 1968, are contributing materially to the increase in procurement functions and to the problem of adequate control of receiving and prompt delivery services to the building. Two additional stock and supply clerks will meet this need as well as improve the service to all other Institution buildings on and away from the Mall.

In the contract area, the volume now requires the addition of a contract specialist to assist in negotiation, administration, and to insure the consistent application of the principles and procedures governing public contracts.

The Smithsonian's research, exhibit, and educational programs have steadily increased in scope and complexity. These activities have created greater demands for common office, laboratory, and workshop supplies and materials in order to maintain acceptable levels of work. For economy and efficiency of purchasing, these items are centrally

bought and stocked by the Supply Division for issue as needed. The Division also provides for rental and routine maintenance and repairs of office machines as part of its property management responsibilities. To meet minimum additional needs in these categories, modest increases are required. Five positions and \$48,000 are a priority request to provide essential services and basic materials.

An additional level of funding would provide a substantially upgraded capability to stock a sufficiently varied inventory of supplies and materials in economically ordered quantities; to meet higher office machine repair costs, and to allow some replacement of obsolete equipment now in use by the Supply Division. A further increase of \$25,000 would provide this support.

Specification Of Increase

To employ 2 clerk-typists, 2 stock and supply clerks, and 1 contract specialist (\$25,000); personnel benefits (\$2,000); rent, communications, and utilities (\$3,000); other services (\$6,000); supplies and materials (\$35,000); and equipment (\$2,000); a total increase of 5 positions and \$73,000.

BUILDINGS MANAGEMENT DEPARTMENT

<u>Program Category</u>	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Buildings Management. . .	723	\$6,648,000	799	\$7,199,000	1,042	\$9,589,000

The Buildings Management Department protects, maintains, and operates eight major Smithsonian buildings, including the original Smithsonian Institution building, the Museum of Natural History, the Museum of History and Technology, the Arts and Industries building, the Freer Gallery of Art, the National Air and Space building, the Fine Arts and Portrait Galleries, and the Renwick Gallery. The Department is also responsible for a number of other research, collection, and service facilities, including the Chesapeake Bay Center for Field Biology, the Belmont Conference Center, the Oceanographic Sorting Center, and the Silver Hill facility for restoration and storage of air and spacecraft.

The Department provides utilities, transportation, and communications services; plans and supervises construction projects; performs alterations, repairs, and improvements; furnishes guard, custodial, fire protection, safety, and security services; participates in the installation of new or renovated exhibition hall repairs and

refinishes museum objects and furnishings; and provides supporting services for research, exhibition, and public education programs of the Institution.

The increases requested herein are necessary to maintain an adequate level of basic services, the cost of which has been approximately 25 percent of the total Smithsonian budget over the past ten years. During this period the demand for Buildings Management services has necessarily paralleled the growth in the number of Smithsonian buildings, the number of visitors to those buildings, and the number of employees necessary to staff the Smithsonian's public service programs. The total floor space of all Smithsonian buildings increased from 1.4 million square feet in 1959 to 3.2 million square feet in 1969. The number of visitors has increased from 7 million in 1959 to 14 million in 1969 and is expected to increase to 20 million by 1973. The number of employees has increased from 860 in 1959 to an estimated 2,660 in 1969.

During the same period there have been substantial additions to practically every cost of meeting new and existing requirements. Salaries, the largest single cost item, have increased 50 percent.. The additional positions and appropriations necessary to maintain the present level of support services during fiscal year 1969 are summarized as follows, by buildings and major activities.

Museum of History and Technology

Although basic construction for the Museum of History and Technology was completed in 1962, the building is being placed in operation in increments, as exhibit halls are completed. During fiscal year 1969 five new halls will be opened and all supporting services must be started. Minimum personnel increases to operate the new space are 4 guards, 5 mechanical and utility services employees, and 1 clerk for the building manager's office. This priority increase is a total of 10 positions and \$119,000.

The level of services and maintenance provided for this important building continues to be minimal, well below the standard desired by the museum director. There is inadequate senior supervision during extended hours of operation; there are too few laborers and custodial employees to respond to requests from the museum staff or to assist in special events without disrupting the already minimal cleaning schedules; there are not enough guards to man fully the 65 guard posts which will exist when the new halls are opened. To provide for an adequate level of services a total of 37 positions and \$226,000 is requested.

Museum of Natural History

The Museum of Natural History, containing 1,220,000 square feet of floor space, is the largest and most complex of all Smithsonian Institution buildings. There continue to be critical deficiencies in operation capabilities. These include insufficient laborers and custodial workers to operate the checkrooms and respond to requests from the expanded scientific staff, not enough guards to man the 42 existing guard posts, and insufficient mechanical service employees to operate and maintain the recently installed air conditioning, heating, and ventilating system. To relieve these critical deficiencies, 5 mechanical service positions, 2 guards, and 2 Buildings Management administrative positions are requested. This priority increase is a total of 9 positions and \$103,000.

In order to staff all functions relative to management and operation and to provide a level of services consistent with the basic needs of the museum staff, an additional increase is requested to provide 10 custodial workers, 3 mechanical service workers, and 9 guards. To provide for this improved level of service, a total of 22 positions and \$167,000 is requested.

Smithsonian Institution Building

During fiscal year 1969 a new central air conditioning system will be installed in the Smithsonian Institution building. This system will require full-time operation and service. In addition the office space will be increased by construction of a new fourth floor. To provide building management services for increased requirements, new positions are requested for 9 mechanical service employees, 2 custodial employees, and 4 truck drivers. A total of 15 positions and \$113,000 is requested.

Arts and Industries Building

A portion of the second floor of the Arts and Industries building has recently been converted to office space and an additional portion will also be converted in the near future. In addition, 3 new exhibit halls will be opened to the public. To provide services for these facilities, 3 custodial employees and 6 guards are required. A total of 9 positions and \$84,000 is requested.

Fine Arts and Portrait Galleries Building

The newly renovated Fine Arts and Portrait Galleries building is being prepared for opening to the public. Like other museums, the building will become fully operational over a period of several years as additional galleries are completed and furnished. The

present Buildings Management staff is adequate only to provide minimum support services during the interim period and must be supplemented to provide enough staff during fiscal year 1969. Present positions and requirements for services anticipated in fiscal year 1969 are:

<u>ACTIVITY</u>	<u>POSITIONS</u>		
	Additional Req'd. for <u>fiscal year 1969</u>	<u>Present</u>	<u>Total</u>
Building Services ...	23	19	42
Mechanical Services .	18	12	30
Protection	42	33	75
	<hr/>		
Total	83	64	147

The minimum additional positions required to open the building, with services at a reduced level and with all except essential activities curtailed, are 20 building services employees, 11 mechanical services employees, and 20 guards. This priority increase is 51 positions and \$417,000.

The balance of increased positions to provide a full level of services for fiscal year 1969 includes 3 building services employees, 7 mechanical service employees, and 22 guards. This additional level of services is a total of 32 positions and \$327,000.

Renwick Gallery

Renovation of the old Court of Claims building at 17th Street and Pennsylvania Avenue will be completed in September 1968. During the fiscal year 1969 the building will be furnished and exhibits will be installed to prepare it as a museum of American crafts, decorative arts, and design. A small staff will be required prior to opening the building to the general public. For this purpose new positions are requested to provide 10 building services employees and 13 guards. This priority increase is a total of 29 positions and \$139,000.

Freer Gallery of Art

The Freer Gallery of Art has been operated without enough guards. There are 9 guard posts for 20 exhibit halls and 7 corridors in the building. The building has 140,000 square feet of floor space and contains hundreds of priceless objects of oriental art. Increasing vandalism now compels us to improve surveillance and protection by adding 5 additional guard posts. This will require 8 additional guard positions to man the posts seven days a week. This is an increase of 8 positions and \$39,000.

Silver Hill Storage Facilities

The Silver Hill warehouses are 22 buildings on approximately 16 acres of land, used for general storage and workshops to rehabilitate aircraft. Although the area is fenced, several acres of open storage for aircraft and vehicles present an attraction for children and souvenir seekers. To protect against vandalism it is necessary to provide additional guards for a 24-hour patrol of buildings and grounds seven days a week. This priority increase is a total of 4 positions and \$27,000.

Additional custodial help is required at Silver Hill to clean the buildings, move museum objects, and improve services to offices, workrooms, and laboratories. This is an increase of 4 positions and \$28,000.

Barney Studio House

It is expected that the Smithsonian Institution will occupy the Barney Studio House full time for research and office purposes. To provide for custodial services and grounds maintenance, supplies, and utilities, a priority request is made for 1 position and \$12,000.

Chesapeake Bay Center for Field Biology

The Chesapeake Bay Center for Field Biology is located on land now owned by the Smithsonian Institution, on the western shore of the Chesapeake Bay seven miles south of Annapolis. To provide for maintenance of the property and purchase of one truck a priority request is made for \$12,000.

Other Buildings

The Department of Entomology, in a rented building on Lamont Street, and general storage, in a rented warehouse on 24th Street, N.W., require additional security against theft and vandalism. An increase of 2 positions and \$10,000 is requested for this improved level of services.

Neighborhood Museums

The Buildings Management Department must provide guards and other services for neighborhood museums located in Washington, D.C. Funds are required for rental of space, protection, utilities, repairs, and modifications to the buildings and purchasing equipment. A priority request is made for 5 guard positions and \$106,000.

Office of the Director

The increased size and complexity of the physical facilities of the Smithsonian Institution require that additional professional and

technical assistance be provided. Two positions are requested for the Engineering and Construction Office to assist in planning, design, estimating, and inspection for construction and improvement projects. Three positions are requested for the Safety Management Office to assist with development of statistics, accident prevention activities, investigative programs, and safety training. Employees from both departments must supervise activities in all Smithsonian Institution facilities including remote locations. This priority increase is a total of 5 positions and \$66,000.

Rehabilitation of Buildings

The fiscal year 1969 base for the Buildings Management Department includes \$225,000 for minor rehabilitation projects to be accomplished by the staff. It is requested that an increase of \$160,000 be provided to overcome an accumulated backlog of projects required to maintain the buildings properly.

Uniforms

The amount of \$26,000 is requested to comply with an agreement, made with the Building Service Employees' International Union, to provide uniforms for the custodial and maintenance personnel. The benefits to be derived from this appropriation

include easy identification of personnel authorized to work in security areas of the building, improved appearance of employees, improved employee morale, and possibly an advantage in recruiting custodial employees.

Rent

An increase of \$113,000 is requested for rental of space, at the old National Bureau of Standards, for use by the Radiation Biology Laboratory, which is currently housed in the basement of the original Smithsonian Institution building. This amount is reimbursable to the General Services Administration.

An increase of \$96,000 is requested for rental of office space which will be required for the relocation of some selected activities during alterations and improvements planned for the Smithsonian Institution Building and the Arts and Industries building. This estimate is based on the General Services Administration standard rate of \$5.00 per square foot.

A total priority increase of \$209,000 is requested for rental.

Due to the size and complexity of the Buildings Management Department, management improvement and cost reduction programs are essential. Periodic evaluations are made of select areas of operation, and comparisons, where applicable, are made with comparable operations by others. Efforts are made to insure that a maximum quality of service is provided with available funds.

Specification of Increase

To provide for 243 positions (\$1,254,000); and to provide personnel benefits (\$93,000); travel (\$1,000); rent, communications, and utilities (\$380,000); other services (\$434,000); supplies and materials (\$154,000); and equipment (\$74,000); a total of 243 positions and \$2,390,000.

SCIENCE INFORMATION EXCHANGE

Program Category	1967		1968		1969	
	<u>Appropriation</u>		<u>Appropriation</u>		<u>Estimate</u>	
	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>	<u>Pos.</u>	<u>Amount</u>
Research and Scholarship	0	0	0	0	4	\$110,000

The Science Information Exchange was established in 1960 to foster and facilitate effective planning and management of scientific research activities, supported by United States agencies and institutions, by promoting the exchange among participating agencies of administrative data about current research. The process includes the accumulation, organization, analysis, and distribution of pertinent information and data. The rapidly increasing volume of research and the importance of research results to our domestic economy, world leadership and defense, point to an ever-increasing need for the exchange of knowledge about such research. To fulfill this need the Science Information Exchange has pioneered and developed rational professional, scientific, and computer-based methods for achieving communication on current research. The services performed by the Science Information Exchange have been effective and widely acclaimed by the scientific community and Government agencies.

Funding in the amount of \$110,000 is requested to provide for research in improving information exchange processes and to permit limited international exchange of research information.

The uncontrollable rapid expansion of information and the concomitant increased demand for information has caused operating difficulties and conflicts. There is a growing conflict between the need for increasingly specialized information within separate disciplines and the need for interdisciplinary communication. Most information research has dwelt on idealized techniques affording limited progress in bridging the gap between methodology and the real needs of the scientific community. There is a need for a variety of studies including the relationship of research intentions to the subsequent results and further exploration of scientific terminology and common vocabularies that facilitate freer flow of information among multidisciplinary fields and missions.

Historically the Smithsonian Institution has been deeply concerned about the exchange of scientific information and considers this one of the most important aspects of its general purpose for the "increase and diffusion of knowledge among men." Consistent with this concern, funds are requested to establish a core program of research to improve the methodology and management of information exchange processes. This priority request is for 4 positions and \$60,000.

International exchange of current scientific research information has generated great interest, and has received steady endorsement, but no funding. An initial pilot project to exchange information on research with Canada, Australia, and New Zealand has been found feasible. Also, the Science Information Exchange has been asked to extend its capability to the international exchange of research information in specific subject fields, such as anthropology. An appropriation of \$50,000 is requested to start this program.

Specification of Increase

To provide 4 positions (\$56, 000); personnel benefits (\$4, 000); and other services (\$50, 000); a total increase of 4 positions and \$110, 000.

SMITHSONIAN INSTITUTION
ANALYSIS OF CIVILIAN PERSONNEL COMPENSATION

	1967		1968		1969 proposed (5)
	In preceding Budget (1)	Actual (2)	In preceding Budget (3)	Proposed for 1968 Budget (4)	
A. Total civilian personnel compensation	\$13,790,000	\$13,856,000	\$15,129,000	\$14,811,000	\$19,892,000
B. Adjustments for changes in pay scales not reflected in 1967 obligations in 1968 budget:					
1. Wage board increases -					
a. Increases effective during the year . . .	xxx	xxx	xxx	xxx	xxx
b. Increases effective in prior years	xxx	xxx	xxx	xxx	xxx
c. Anticipated additional increases to be effected in 1968 . . .	xxx	xxx	xxx	79,000	105,000
2. Pay Act increases -					
a. Increases effective during the year . . .	xxx	xxx	xxx	xxx	xxx
b. Increases effective in prior years	xxx	xxx	xxx	xxx	xxx
C. Adjusted personnel compensation	\$13,790,000	\$13,856,000	\$15,129,000	\$14,732,000	\$19,787,000
D. Average number of all civilian employees	1,794	1,779	1,970	1,931	2,687
E. Average compensation (Line C ÷ Line D)	\$ 7,687	\$ 7,788	\$ 7,680	\$ 7,630	\$ 7,363
F. Percent change in average compensation 1969 over 1968	xxx	xxx	xxx	xxx	-2.9%

SMITHSONIAN INSTITUTION
CONSOLIDATED SCHEDULE

ANALYSIS OF PAY ABOVE MINIMUM

<u>Year</u>	<u>Minimum Pay</u>	<u>Pay above Minimum</u>	<u>Weight</u>	<u>Adjusted Pay Above Minimum</u>	<u>Number of Positions</u>	<u>Adjusted Average Pay Above Minimum</u>	<u>Change in Average Above Minimum</u>
GS- Series: 1964	\$6,537,790	\$403,085	1,153	\$464,757	933	\$498	---
1965	7,775,935	555,390	1,066	592,046	1,065	556	+58
1966	9,243,253	671,050	1,028	689,839	1,185	582	+26
1967	10,681,901	876,817	1,000	876,817	1,309	670	+88
1968	11,496,748	1,076,704	1,000	1,076,704	1,425	756	+86
1969	15,340,276	1,342,687	1,000	1,342,687	1,976	679	-77

SMITHSONIAN INSTITUTION

NUMBERS OF CIVILIAN PERSONNEL

	Number of employees at end of year			
	1967	1968		1969
	Full-time in permanent positions	Full-time in permanent positions	Full-time in permanent positions	Full-time in permanent positions
Salaries and expenses ...	1,736	1,912	2,084	2,579
Advances and reimburse- ments	20	20	28	19
National Zoological Park	219	234	272	251
Total actual and estimated employment, Smithsonian Institution	1,975	2,166	2,384	2,849
				3,095
				2,779

	1967	1968	1969
Number of Youth Opportunity Campaign employees included in above total	xxx	xxx	xxx
	60	60	60

SMITHSONIAN INSTITUTION

FISCAL YEAR 1969 BUDGET

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SMITHSONIAN INSTITUTION
SPECIAL FOREIGN CURRENCY PROGRAM
FISCAL YEAR 1969

The Institution proposes to advance its Special Foreign Currency Program from its present \$2, 316, 000 level to \$6, 000, 000 for fiscal year 1969. This increase will accommodate the strong interest of American universities and museums and will finance the Smithsonian's own research, museum, and education interests overseas through the advantageous use of foreign currencies excess to the needs of the United States.

From the inception of the program, the Smithsonian has awarded 77 grants benefitting over 90 American institutions of higher learning, singly or in consortiums. These grants have permitted these institutions to carry out important research in cooperation with host-country institutions in relatively neglected areas of scientific investigation. In some fields, such as classical archeology, the Smithsonian's Foreign Currency Program represents the only source of support, either governmental or private, for interested American institutions. Many archeologists and university officials have said that the United States would be in a secondary role in the study of ancient civilizations, in the face of the rising interest of other nations, were it not for the Smithsonian's program. In systematic and environmental biology, the Institution's excess foreign currency grants have helped significantly to reduce the backlog task in identification of specimens, both marine and terrestrial. Also they have permitted American ecologists to

conduct surveys in a variety of countries and in an even greater variety of natural environments.

The requested increase is directed mainly to a higher level of effort in the biological sciences, especially field research projects in systematic and environmental biology, in support of the International Biological Program [IBP]. This program is aimed at making a complete biological inventory of the earth's natural environments. The Institution feels an obligation to support the research studies that are necessary to make the IBP a global success.

The increase will be used also to meet a mounting number of grant applications in archeology or related disciplines and to provide an economical method of funding certain of the overseas operations of Smithsonian units. The latter include the Smithsonian's Astrophysical Observatory, which can meet research responsibilities in gamma radiation, satellite geodesy, and celestial mechanics; the United States National Museum, which can develop exhibits techniques and museum training programs most economically in such countries as India or Israel, the results of which can advance museum education in both the United States and the host countries; and the International Exchange Service, which can ship publications on American and other flag lines willing to accept payment in foreign currencies.

SMITHSONIAN INSTITUTION

MUSEUM PROGRAMS AND RELATED RESEARCH (SPECIAL FOREIGN
CURRENCY PROGRAM)

For payments in foreign currencies which the Treasury Department shall determine to be excess to the normal requirements of the United States, for necessary expenses for carrying out museum programs and related research in the natural sciences and cultural history under the provisions of section 104(k) of the Agricultural Trade Development and Assistance Act of 1954, as amended (7 U.S.C. 1704k), ~~\$2,316,000~~ \$6,000,000 to remain available until expended and to be available only to United States institutions: *Provided*, That this appropriation shall be available, in addition to other appropriations to Smithsonian Institution, for payments in the foregoing currencies.

(Department of the Interior and Related Agencies,
1968)

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

Program and Financing (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0102-0-1-704			
<u>Program by activities:</u>			
Grants for museum programs and related research in the natural sciences and cultural history (program costs, funded).....	885	2,827	4,200
Change in selected resources <u>1/</u> ...	1,883	-330	1,800
10 Total obligations (object class 41.0)	2,768	2,497	6,000
<u>Financing:</u>			
21 Unobligated balance available, start of year	-633	-181	....
24 Unobligated balance available, end of year	181	....	....
40 <u>New obligational authority (appropriation)</u>	2,316	2,316	6,000
<u>Relation of obligations to expenditures:</u>			
71 Total obligations (affecting expenditures).....	2,768	2,497	6,000
72 Obligated balance, start of year ..	147	2,062	1,800
74 Obligated balance, end of year ...	-2,062	-1,800	-3,800
90 Expenditures.....	852	2,759	4,000

1/ Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1966, \$147 thousand; 1967, \$2,030 thousand; 1968, \$1,700 thousand; 1969, \$3,500 thousand.

1. Grants for programs in archeological research, excavation and restoration, systematic and environmental biology, and museum sciences. -- The Smithsonian Institution will continue the program of awarding grants to American universities, museums or other institutions of higher learning interested in conducting research or excavations in archeology, research on systematic and environmental biology, and programs in museum sciences in the excess foreign currency countries.

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1967 Appropriation	\$2, 316, 000
1968 Appropriation	\$2, 316, 000
1969 Estimate	\$6, 000, 000

An appropriation of \$6, 000, 000 in foreign currencies, as determined by the Treasury Department to be excess to the needs of the United States, is requested for a program of grants to United States institutions for essential field research in archeology and related disciplines, systematic and environmental biology, astrophysics, and other fields of Smithsonian competence.

Organizations ranging from the American Institute of Archeology to the United States National Committee for the International Biological Program have characterized this Smithsonian program as the sole or the most important source of support for overseas research needs. In addition, both the National Academy of Sciences and the National Science Foundation have welcomed this source of funding for basic research in fields of study and in regions of the world which have suffered relative neglect. It may also be said that although it is primarily a grant program to other American institutions, the Smithsonian's Foreign Currency Program has a proven record of advancing the Institution's own research through concentration of grants in disciplines or on specific projects that represent strong interests of the Smithsonian scientific staff.

Funds are requested for the following projects:

	<u>1967</u> <u>Appropriation</u>	<u>1968</u> <u>Appropriation</u>	<u>1969</u> <u>Estimate</u>
Archeology and Related Disciplines	\$1,300,000	\$1,105,000	\$2,000,000
Systematic and Environmental Biology	1,016,000	1,016,000	3,580,000
Museum Programs ...	0	40,000	250,000
Astrophysics	0	145,000	120,000
International Exchange Service	0	0	20,000
Grant Administration..	0	10,000	30,000
	<hr/>	<hr/>	<hr/>
Total	\$2,316,000	\$2,316,000	\$6,000,000

Research And Excavation In Archeology And Related Disciplines

\$2,000,000 in excess currencies are requested for the fourth year of the Smithsonian's program of grants to American universities, museums, or other institutions of higher learning interested in conducting excavations or research in archeology and related disciplines in the excess foreign currency countries.

Within this amount, approximately \$1,230,000 in excess currencies will be required for ongoing research or excavations which in the Institution's view fully merit continuing support. Among these projects are:

- The Hebrew Union College--Jerusalem School of Archeology excavation at Gezer, Israel. This excavation, which serves as

a principal field training ground for American biblical scholars and archeologists attending the Jerusalem School's annual Seminar on Near Eastern Civilizations, centers on the city given by Pharaoh Shishak as a dowry to his daughter, who became King Solomon's queen. Excavations have furnished conclusive proof of the city's destruction by Nebuchadnezzar.

- The University of Pennsylvania project to photograph and match with the use of computers the massive stones of the Temple of Akhnaten stored at random at Luxor, Egypt. The interpretation of the pictorial scenes and hieroglyphics on the stones' faces is expected to reveal much about the unique monotheistic faith of this XVIIIth Dynasty Pharaoh. This and other Smithsonian-supported projects in Egypt have been able to continue, with only slight interruptions caused by the Arab-Israeli hostilities.
- The University of Michigan excavation of a Neolithic site near Cracow, Poland, undertaken together with the Polish Academy of Science's Institute for the History of Material Culture. This project, which is the first under the Smithsonian's program in Poland, and the first United States-Polish joint archeological excavation since World War II, is expected to provide sound knowledge of the initial agricultural societies in Poland and of their origins.
- Joint Stanford University--Territorial Museum of Sarajevo excavations and surveys of the Trebisnjica Basin near Dubrovnik, Yugoslavia. This archeologically rich area, which is soon to be flooded by dam and hydro-electric construction, contains large

Roman and medieval Slavic necropoli, as well as archeological sites and monuments of Pre-Illyria, Illyrian (Iron Age), Greek and Bogomil origin.

Within the total of \$2,000,000 in excess currencies requested for archeological and related research, \$300,000 are requested to support sound project proposals received during fiscal year 1968 which could not be considered because of insufficient funds. Interest in the archeological program has reached a new high, with grant applications from universities or museums across the nation averaging three a month; the Institution therefore wishes to be able to accommodate at least a select number of outstanding project proposals held pending during the current fiscal year.

An additional \$470,000 is requested to support new project proposals currently in preparation which the Institution feels merit serious consideration.

A list of ongoing, pending, and new archeological projects is found on page B-19.

Systematic And Environmental Biology

\$3,580,000 in excess currencies are requested for support of field research projects in systematic and environmental biology. This amount, which forms the largest part of the Institution's foreign currency request, may be subdivided as follows:

1) Direct Support of the International Biological Program--\$100,000.

The Smithsonian is a major contributor to the United States' work under the International Biological Program [IBP]. The IBP is an

international scientific effort to which some fifty nations have subscribed, aimed at taking a biological inventory of the earth's natural environments, both marine and terrestrial, in order to determine their relative productivity for the human populations that must some day inhabit or sensibly exploit them.

Responding to requests of the National Science Foundation, the National Academy of Sciences, and the United States National Committee for the IBP, on which the Institution is prominently represented, the Smithsonian employed a small but significant portion of its fiscal years 1967 and 1968 special foreign currency appropriations to support IBP conferences and preliminary surveys in Poland and Tunisia. Plans of the United States National Committee and of the International Secretariat of the IBP now call for planning symposia and training courses aimed at developing common research objectives and techniques. Some of these activities will take place during fiscal year 1969 in the excess currency countries of India, Israel, and Poland. As a consequence, the Smithsonian would like to make a direct contribution of \$100,000 in excess currencies to support American participation in the symposia and training courses.

A breakdown for the IBP contribution is given on page B-27.

2) Research in Systematic and Environmental Biology--\$2,980,000

The sum of \$2,980,000 in excess currencies is requested for research in systematic and environmental biology contributing to the program objectives of the IBP.

Approximately 27 percent of the funds requested for systematic and environmental biology, or some \$818,000 in excess currencies are needed to continue multiyear projects initiated in fiscal years 1967 and 1968. Noteworthy examples include:

- An oceanographic sorting facility at Salambo, Tunisia, which serves as the Mediterranean extension of the Smithsonian's Oceanographic Sorting Center in Washington. This facility, known as the Mediterranean Marine Sorting Center, was established in November 1966 with the cooperation of the Tunisian National Institute of Oceanography and Fisheries, which provides storage and laboratory facilities. Its purpose is to accelerate the identification of marine organisms of the Mediterranean, especially the microscopic plankton which are the beginning of the life cycle and the key to the marine resources of all oceans. The Mediterranean Center is currently sorting collections from cooperating scientific institutions or individual scientists across the Mediterranean. It has contributed to special projects of the Food and Agricultural Organization and various international oceanographic organizations.
- A University of Georgia study of the flow of energy in small rodent populations, in conjunction with the Institute of Ecology of the Polish Academy of Sciences. This study will provide basic

information on the food consumed by rodents which would otherwise be available to man. It will provide a basis for additional studies in other world regions where the impact of mice and rats on the human community is great.

--A Smithsonian study of the ecology of the Ceylonese elephant.

The objective of this study, which is headed by a National Zoological Park zoologist, is to develop a plan for the conservation of the elephants in Ceylon, where expansion of agriculture is threatening the elephant's forest habitat. It is expected that the results of this research will have some application to other Asian or African elephant habitats.

--A University of Michigan ecological study of a living coral reef and its associated organisms at Eilat, Israel. This study is similar in objective to those which have resulted in new understanding of territorial behavior and the origins of aggression in many species of animals. The results of this area of ecological research have recently been widely published and acclaimed for the new light they throw on human behavior.

Of the funds requested for systematic and environmental biology, \$1,399,000 in excess currencies are needed for research foregone during the current fiscal year for lack of funds. Among proposals which the Institution has had to postpone are a Duke University ecological study of the Indian province of Assam, a California Academy of Sciences study of Indian dolphins, and a University of Michigan study of the effects of fire and grazing on the characteristic Mediterranean shrub ecosystems of Israel.

Approximately \$763,000 of the funds requested for systematic and environmental biology will be required to accommodate new project proposals. Prominent among these will be Smithsonian-directed comparative ecological studies in different world areas, which would be undertaken with the University of Washington, the University of California, the University of North Carolina, Johns Hopkins University, the University of Michigan, and Michigan State. In this category also will be marine biology studies growing out of a survey of the research resources of six of the excess currency countries: namely, Tunisia, Yugoslavia, Israel, Egypt, Pakistan, and India. The survey was requested by the recently established National Council for

Marine Resources and Engineering Development and would be carried out under the direction of the Smithsonian's Office of Oceanography and Limnology with various participating American universities. Its purpose is to evaluate the potential research contributions which these nations can make to "Food from the Sea" programs and to plan future cooperative projects of high priority to both the United States and the host countries.

A list of ongoing and new or illustrative projects in systematic and environmental biology is found on page B-27.

3) Smithsonian Contribution to the National Science Foundation's Translation Program--\$500,000

The Institution urgently requests foreign currencies to be used to accelerate the translation of vital foreign reference works in systematic biology through the National Science Foundation's translation program. Under existing arrangements, the Smithsonian annually receives an average of 3,000 pages of translation of foreign scientific works without charge as its quota in NSF's interagency service program. However, at this rate of support, the Institution cannot receive in time the necessary foreign monographs which will permit it to make much needed comparative studies on its own growing collections. For example, the Museum of Natural History's Department of Botany and the American botanical community in general urgently need a translation of the recently completed 30-volume Flora of the USSR. Such a translation will not be ready under the present rate of allocation of NSF funds until sometime after 1990. This one reference set is indispensable to the plans now under way to write a long overdue revised Flora of North America. Availability of the Russian translation will greatly facilitate

this American work because comparative studies of species common to both continents are essential to proper classification. Translation of the Russian Flora will also avoid much possible duplication of effort. The importance of translation of this and other Soviet taxonomic publications was recently highlighted by a unanimous resolution of the American Society of Plant Taxonomists which called for rapid expansion of the NSF program.

There are many other similarly urgent needs for translations of foreign taxonomic literature which can make a substantial contribution to the International Biological Program. All of these needs must be met at a faster pace because the global biological inventory proposed by the IBP cannot be completed without such basic reference works.

The Smithsonian therefore requests \$500,000 of its foreign currency appropriation for transfer to the National Science Foundation to permit the Foundation to respond more adequately to the Institution's translation needs. Similar foreign currency transfers for accelerated translation have already been made by the Departments of Agriculture; Commerce; Interior; Labor; and Health, Education and Welfare.

Museum Programs

\$250,000 in excess currencies are requested to support cooperative programs of the United States National Museum involving other American museums and professional museum organizations in a continuing study of museum problems, both in the United States and abroad.

Funds requested would be used to strengthen United States' museums with program interests in the excess currency countries. Specifically, support would go to training courses and conferences for

museum professionals in India, Israel, Egypt, and Ceylon, some of which will have support from the UNESCO-affiliated International Council of Museums. Funds would also go to provide advisory services of American museum professionals responding to requests from abroad and to complement with foreign currencies the exchange of museum professionals proposed under the United States National Museum Program [see page 36]. A portion of the appropriation also would be used to improve museum collections and to exchange exhibits by defraying shipping costs which otherwise might require use of dollars.

Additional detail on Museum Program uses of excess currencies appears on page 36.

Astrophysics

\$120,000 in excess currencies are requested for research in astrophysics. The funds would be used to extend current programs of the Smithsonian Astrophysical Observatory (SAO) in satellite geodesy, celestial mechanics, and the history of astronomy by making use of the geographical advantages and the special research resources of three excess currency countries, Ceylon, Egypt, and India.

A breakdown of proposed SAO research appears on page 37.

International Exchange Service

\$20,000 in foreign currencies are requested to permit the International Exchange Service (IES) to effect economies in its dollar expenditures for the shipment of publications to various of the excess countries.

Grant Administration

\$30,000 in excess currencies are requested to defray costs of administration of the Special Foreign Currency Program which otherwise would require an expenditure of dollars. Funds would be used to cover travel and related costs for scholars and program staff inspecting field research projects and negotiating with host governments on program operations, as well as costs of on-site audits of multiyear projects in the excess currency countries.

Apportionment Of Foreign Currencies

Outlined below are the various projects and project proposals which make up the total of \$6,000,000 excess foreign currency fiscal year 1969 estimate, divided according to the different program areas described above. Continuing or ongoing projects are identified. New projects are in effect sample or illustrative projects based on firm indications of interest both within and without the Smithsonian. They represent the Institution's selection of possible projects which appear most promising for successful development and implementation during fiscal year 1969. It should be noted, however, that actual implementation of these projects will be contingent upon three factors: review by the Smithsonian's outside advisory councils, review and approval by American embassies overseas, and appropriate cooperative arrangements with host-country institutions or Governmental authorities.

This request reflects an assessment of the most valuable and practicable research opportunities in the 11 excess currency countries, as determined by scientific surveys and conferences with host country institutions. It is not expected that foreign currency appropriation requests in subsequent years would differ significantly unless the number of excess currency countries is radically altered.

Country	Research Opportunity	Priority
1. Argentina	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
2. Australia	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
3. Canada	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
4. France	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
5. Germany	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
6. Italy	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
7. Japan	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
8. United Kingdom	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
9. Soviet Union	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
10. Sweden	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High
11. Switzerland	Research in the field of atomic energy, particularly in the area of neutron physics and nuclear reactors.	High

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

I. Archeological Excavation and Research

A. Ongoing Projects:

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. American Institute of Indian Studies (a nonprofit organization of 24 American colleges and universities)	For continued support of the American Academy of Benares, a research center for South Asian archeology and art history	150,000
2. American Research Center in Egypt (a nonprofit study center supported by ten American universities)	To continue support of the Center's research and excavation program in the archeology of Egypt, which includes Pharaonic, Hellenistic, Roman, and early Christian sites.	160,000
3. Jerusalem School of Archeology of the Hebrew Union College	To continue the survey and exploration of some 400 archeological sites in the Negev and to conduct seminars in biblical archeology for American graduate students in archeology.	150,000
4. Peabody Museum of Yale University	To continue the paleontology and stratigraphy studies of the Paleocene, Eocene, and Oligocene deposits of Egypt, which have resulted in important discoveries relating to human evolution.	30,000
5. University of Colorado	To study prehistoric archeological and paleontologic remains in Tunisia.	60,000
6. Southern Methodist University	To study prehistory of the area around Sibaiya, Egypt.	40,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U. S. Dollars</u>
7. University Museum, University of Pennsylvania	To study remaining stones of the Temple of Akhnaten at Luxor, Egypt.	60,000
8. Museum of Anthropology, University of Michigan	To develop a program for research and training in prehistoric archeology through field excavations on Mt. Carmel in Israel.	50,000
9. University of Washington, American Mu- seum of Natural History	To study and excavate prehis- toric and early historic sites in East and West Pakistan.	50,000
10. Carnegie Museum	To continue the excavation of a Philistine City at Ashdod, Israel.	50,000
11. Lawrence Radiation Laboratory, University of California, Berkeley	To continue testing the utilization of cosmic rays to "x-ray" the Egyptian pyramids in search of presently unknown chambers.	30,000
12. Museum of Anthropology, University of Michigan	To continue excavations of early Neolithic sites nears Cracow, Poland, with the goal of providing the first detailed description of early Neolithic cultures in Poland.	20,000
13. University of Missouri	To excavate at Yavneh Yam, Israel, to understand better the nature of Greek trade with Palestine and Egypt in the period after 800 B.C.	40,000
14. University of Oregon; Portland State College; University of Illinois	To establish a chronology of the cultural history of West Africa on the basis of excavations and re- cordings of oral history in Guinea.	40,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
15. University of Minnesota	To initiate a program of research in Yugoslavia with excavations of the unique Roman Palace of Diocletian at Split, Yugoslavia.	27,000
16. Carnegie Museum	To extend the excavations at Ashdod, Israel, to include underwater studies of the ancient port serving Ashdod and of ancient sunken ships associated with it.	20,000
17. Smithsonian Institution, Office of Anthropology	To study disappearing metal- working crafts of Pakistan and Ceylon as part of a world-wide study of ancient technologies and their development.	20,000
18. Smithsonian Institution, Office of Anthropology	To excavate at Carthage, Tunisia, to study the little known Punic civilization which flourished there before the conquest by Rome.	40,000
19. University of California at Los Angeles	To excavate at Obre, Yugoslavia, a site which promises to provide definitive information about the remarkably high Butmir civilization of the fourth millenium B.C.	21,000
20. Yale University	To locate and open quarry excavations for fossil remains of early relatives of man in Siwalik hills of North India.	40,000
21. Brooklyn Museum	To construct scale models of Egyptian monuments and archeological sites for study purposes of United States mu- seums and universities.	10,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
22. University of Wisconsin	To reexamine late pre-historic sites in Kharga and Dekhla Oasis in Egypt to relate this area which is rich in Neolithic cultural objects to the adjacent Nile Valley.	8,000
23. Institute for Advanced Study, Princeton	To conduct interdisciplinary research and excavations in Bronze and early Iron Ages of Northern Yugoslavia.	8,000
24. Peabody Museum, Harvard University	To excavate at Starcevo, Yugoslavia, to test conclusions of earlier research at this earliest of Middle Danube Basin Neolithic sites in the light of new archeological techniques including radiocarbon dating.	10,000
25. University of Chicago	To provide research assistantships for graduate credit in South Asian art at the American Academy of Benares, India, an affiliate of the American Institute of Indian Studies.	10,000
26. University of Chicago	To examine a Vaisnava religious community in West Bengal historically and sociologically.	50,000
27. American University in Cairo	To study the distinctive dome Mausolea of the Mamluk era (1250-1517 A.D.) in Cairo which have not been studied and are threatened by growth and modernization of Cairo.	21,000
28. Stanford University	To conclude urgent archeological and ethnographic studies of Trebisnjica River basin rapidly being inundated by waters rising behind a newly constructed dam.	15,000

Total Ongoing Projects

\$1,230,000

B. Pending Research Proposals

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U. S. Dollars</u>
1. University of Pennsylvania	To excavate the proto-historic site of Kantarodai, Ceylon, to determine the nature and chronology of settlement and to look for evidence of early links with South India.	40,000
2. Smithsonian Institution Division of Numismatics	To survey numismatic collections and cooperative research opportunities for American scholars.	10,000
3. University of Washington	To excavate at Novi Sad, Yugoslavia, an eleventh century monastery partially destroyed by Mongol invasions, which shows both Western and Byzantine influences.	35,000
4. University of Wisconsin	To conduct preparatory studies leading to multiyear interdisciplinary research in archeology and cultural anthropology in eastern Uttar Pradesh state as part of the cooperative Indian studies program with Benares Hindu University.	40,000
5. Dumbarton Oaks (Harvard) Center of Byzantine Studies American Academy in Rome	To study the unique but rapidly disintegrating Roman and Byzantine Mosaics at historic Utica, Tunisia.	40,000
6. Smithsonian Institution	To prepare urgent anthropological research proposals in five excess currency countries as a part of the Smithsonian's traditional worldwide Research Program in Changing Cultures.	20,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
7. University of Wisconsin	To study and film the rapidly disappearing Dhangars/Bangars, the semi-nomadic shepherds of Maharashtra State, India.	40,000
8. University of Massachusetts	To study the effects of the decline in both death and birth rates on the Zadruga on south Slav extended-family household group.	40,000
9. University of Washington	To study the relationship between the social structure of the Vedda communities of Ceylon and their economic organizations, food-collection, seasonal agriculturalists, and settled agriculturalists.	30,000
10. Smithsonian Institution, Department of Science and Technology	To publish in English the results of research in medieval medicine based on original manuscripts in Egyptian libraries.	5,000

Total Pending Research Proposals 300,000

C. New Project Proposals

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Smithsonian Institution, Office of Anthropology	To study rapidly disappearing crafts at the village level in India.	50,000
2. University of Michigan	To conduct research in ancient numismatics in the Eastern Mediterranean (Israel).	20,000
3. American Institute of Indian Studies, American Academy of Benares	To survey and excavate monuments and remains of the Pratihara period especially at Bhinmal in Rajasthan.	40,000
4. Smithsonian Institution, Museum of Natural History	To survey and document the art history of Tibet on the basis of objects currently being brought to India and Nepal by Tibetan refugees.	30,000
5. New York University; Columbia University; University of Michigan	To excavate ancient Utica, Tunisia, employing interdisciplinary techniques designed to describe fully the mode of life and the environment characteristic of successive cultures inhabiting the site.	40,000
6. University of Washington	To prepare archeological research priorities for American institutions to undertake in cooperation with India's Archeological Survey and its Proposed Research Institute.	30,000
7. Smithsonian Institution, Office of Anthropology	To initiate systematic collections of Indian folk art which is disappearing as village crafts yield to urban technology.	40,000
8. University of Illinois	To conduct comparative studies of the effects of cultural change on folk music in Tunisia, Egypt, and Israel.	30,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
9. Denison University	To establish America's only photographic archives of Ancient Burmese art through exchanges with Burmese and other museums.	10,000
10. American University in Cairo	To establish a Union List of Coptic manuscripts in Egypt where they are widely dispersed and uncataloged and are therefore largely inaccessible for research.	5,000
11. California State College at Long Beach	To conduct prehistoric excavations in Ceylon to explore the question of common cultural origins with the peoples of Polynesia and Micronesia.	30,000
12. Smithsonian Institution, Office of Anthropology	To study the material culture of the Bantu Tribes of the Congo and prepare ethnographic collections for the Museum of Natural History.	35,000
13. Columbia University	To study the relationships of ritual and social structure in the "Ridge and Valley" section of the interior of Ceylon.	20,000
14. University of Wisconsin	To study man's early primate ancestors of Asia and Africa.	40,000
15. American Institute of Indian Studies	To provide fellowships for pre- and post-doctoral research in social and cultural anthropology and linguistics of India and Ceylon.	40,000
16. Miami University (Ohio)	To study cultural change in Middle Eastern peasant societies in Tunisia and Egypt.	10,000
	Total New Project Proposals	470,000
		<hr/> <hr/>
Grand Total Archeological Excavation and Research		2,000,000

II. Systematic and Environmental Biology

1) Direct Support to the International Biological Program

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. National Academy of Sciences - U.S. National Committee for the IBP	To support American partici- pation in IBP international symposia and planning conferences.	35,000
	To convene an American- sponsored symposium in Israel on the effects of extreme environments on living things.	25,000
	To support the training of American research project directors in IBP courses in bioenergetics in Poland.	40,000
	Total Direct Support to the IBP	<u>100,000</u>

2) Systematic and Environmental Biology

A. Ongoing Projects:

1. University of Georgia	To study the flow of energy through small rodent populations in different habitats in conjunction with the Ecological Institute of Poland.	125,000
2. Smithsonian Institution, Office of Oceanography and Limnology	To study marine organisms of the Red Sea and Eastern Mediterranean in order to determine what biological interchange of species has occurred through the Suez Canal.	100,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
3. Smithsonian Institution	To accelerate the processing of marine organisms from the Mediterranean through the sorting facility known as the Mediterranean Marine Sorting Center operated in cooperation with the Tunisian Institute of Oceanography and Fisheries.	100,000
4. University of Colorado	To excavate a paleontological site in the Miocene-Pliocene formations of South Central Tunisia to attempt to establish a chronology for fossil mammals in Tunisia which may help to determine geological relationships with similar European formations.	23,000
5. Smithsonian Institution, Division of Birds	To continue investigations on the ecology of Palearctic birds migrating through northeastern Africa, including cooperative research on serology with the Rockefeller Virus Laboratory and ectoparasites with the Naval Medical Research Unit III in Egypt.	41,000
6. Smithsonian Institution, Department of Entomology	To continue behavioral investigations of insects in Egypt, particularly wasps, and to obtain examples of the insects and plants of Egypt for the exhibits of the Museum of Natural History.	5,000
7. University of Michigan	To continue taxonomic studies of Indian mollusks through caryotype analysis and the cytogenetics of closely related species which will contribute to medical, public health, and veterinary programs.	16,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
8. Smithsonian Institution, Office of Ecology	To continue ecological surveys in Tunisia, Israel, Pakistan, India, Ceylon, and Congo(Kinshasa) and to prepare cooperative research with the Universities of Washington, California, North Carolina, Johns Hopkins, Michigan State, Michigan, Montana, and Minnesota.	80,000
9. Smithsonian Institution, National Zoological Park	To continue studies of the evolution and behavior of related primates (Cercopithecidae) in different environments in Ceylon .	21,000
10. Johns Hopkins University	To continue comparative studies of the behavior and ecology of populations of rodents and shrews in field, town, and city habitats in West Bengal, India.	40,000
11. Smithsonian Institution, National Zoological Park	To continue studies of the relation of man and elephant in Ceylon where the domesticated beast of burden is captured and trained to work with man after reaching maturity as a wild elephant rather than after domestication as a young animal.	10,000
12. Smithsonian Institution, Department of Botany	To continue comparative studies of the embryology and floral anatomy of tropical grasses in cooperation with the School of Plant Morphology at Meerut College, India.	13,000
13. University of Michigan	To continue theoretical ecological studies of a living coral reef and the organisms related to it.	20,000
14. Smithsonian Institution	To continue revision of the basic <u>Trimen's Flora</u> of Ceylon in the light of modern botanical knowledge and techniques.	30,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
15. Smithsonian Institution, National Zoological Park	To complete studies of the behavior and ecology of the Ceylonese elephant and the preparation of a conservation plan.	40,000
16. Smithsonian Institution, Office of Ecology	To complete flora and vegetation studies of Ceylon considered basic to development of Ceylon's agricultural and forest resources.	40,000
17. Smithsonian Institution	To continue migratory bird banding and serological studies of principal flyways of India in cooperation with the Bombay Natural History Society.	10,000
18. Smithsonian Institution, Department of Botany	To continue flora and vegetation studies of a district of Mysore State in the Ghat Mountains of Southwest India and to prepare collections for the Smithsonian's National Herbarium.	20,000
19. Smithsonian Institution, Radiation Biology Laboratory	To extend studies of solar radiation to equatorial station in Ceylon for comparison with data obtained in Israel and Washington, D. C.	84,000
Total Ongoing Projects		818,000

B. Pending Research Proposals

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Duke University	To conduct field studies in plant taxonomy and ecology in Assam state, India.	30,000
2. University of Georgia	To study the interaction of human and small rodent populations in a variety of temperate zone environments in conjunction with the Ecological Institute of Poland.	50,000
3. Smithsonian Institution, Department of Invertebrate Zoology	To study the taxonomy and distribution of the poorly known microscopic marine fauna of the Bay of Bengal to be obtained by collecting sediments from the coastal region of East Pakistan.	20,000
4. Smithsonian Institution, Department of Invertebrate Zoology	To collect and study the larger marine invertebrates known as stomatopods which are native to the Arabian Sea in cooperation with the University of Karachi.	20,000
5. California Academy of Sciences	To study the so-called blind dolphin of the Ganges, Indus, and Bramaputra Rivers of India and Pakistan as a part of a worldwide ecological and behavioral study of the fresh water species.	40,000
6. California Academy of Sciences	To conduct field investigations of the habitats of Indian amphibians and reptiles especially in the fast disappearing virgin environments of that country.	50,000
7. Smithsonian Institution, Office of Oceanography and Limnology	To study the benthic and planktonic biology of the Adriatic Sea in Yugoslavia.	50,000
8. Smithsonian Institution, Office of Ecology	To study the ecology and behavior of hooved animals in a teak forest in India.	40,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
9. Southern Methodist University	To undertake a definitive study of quaternary age deposits on the floor and the lower slopes of the Qattara Depression in the western Desert of Egypt.	50,000
10. Smithsonian Institution, Office of Oceanography and Limnology	To conduct taxonomic research on the marine fauna of Pakistan's coastal waters in cooperation with the University of Karachi.	100,000
11. Johns Hopkins University	To complete studies of the population ecology of Rhesus monkeys in Northern India.	10,000
12. University of Michigan	To study primary productivity of natural and seminatural Mediterranean shrub ecosystems as affected by fire and grazing.	41,000
13. Smithsonian Institution, Department of Paleobiology	To collect in Poland and Israel specimen fossil sea urchins (echinoids) as a part of ongoing evolutionary studies of their masticating device, popularly known as Aristotle's lantern, believed to be transitional between major orders of this animal.	35,000
14. Smithsonian Institution, Office of Oceanography and Limnology	To establish in India a sorting center to distribute for study to world specialists specimens of marine biota from the Indian Ocean.	250,000
15. Duke University	To conduct taxonomic studies in Yugoslavia of the Adriatic isopod and prepare a handbook for the study of this marine organism.	40,000
16. Smithsonian Institution, National Zoological Park and Museum of Natural History	To provide grants to Smithsonian scientists for increasing the national entomological, botanical, and zoological collections by expeditions to India, Ceylon, Egypt, Pakistan, Congo (Kinshasa), and Tunisia.	573,000
Total, Pending Research Proposals		1,399,000

C. New Project Proposals

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Smithsonian Institution, Office of Ecology	To conduct limnological studies of fresh water lakes and streams of the Congo (Kinshasa) and studies of terrestrial ecosystems with emphasis on wildlife resources of the national parks.	90,000
2. Smithsonian Institution, Office of Ecology	To conduct ecological studies of Mediterranean and Saharan environments in research preserves recommended by the International Biological Program in Tunisia.	80,000
3. American University of Cairo	To study in Egypt the migration of marine biota between the Red Sea and the Mediterranean through the Suez Canal.	70,000
4. Smithsonian Institution, Office of Ecology	To conduct studies of the pattern and behavior of birds during migration in the Himalayan Mountains of Northern India and Nepal.	30,000
5. Smithsonian Institution, Office of Ecology	To study the behavior of elephants and primates in India and coordinate these studies with the Smithsonian studies currently being conducted in Ceylon.	40,000
6. University of Connecticut	To conduct taxonomic and ecological studies of the fauna of a large brackish water lake in south India.	35,000
7. University of Michigan	To collect and study the plankton communities of the Nile River Delta as they are affected by changes in salinity and circulation caused by construction of the Aswan Dam.	200,000
8. Smithsonian Institution, Division of Invertebrate Paleontology	To study in India the broadly distributed fossil ostracode which reveals through its varied physical appearance much about the climate and geography of the era in which it lived back through geological time.	35,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
9. University of Michigan	To study the importance of bilharziasis snail pests in new environments created by the Aswan Dam in Egypt.	75,000
10. Smithsonian Institution, Division of Vertebrate Paleontology	To study European fossil mammals in Polish museums for purposes of comparison with North American materials.	15,000
11. University of Utah	To collect the mayflies of Pakistan for taxonomic studies as a part of specialized, world-wide studies.	13,000
12. Smithsonian Institution, Office of Ecology	To conduct investigation of the plant ecology of the Maldiv Islands of India in cooperation with the Botanical Survey of India.	30,000
13. Smithsonian Institution	To make collections and to conduct floristic studies of neglected areas of India such as the Malabar Coast, the Koromandel Coast, the Nilghiri Hills and Khasia Hills which served as the basis of classic studies made as long ago as the 17th century in cooperation with the Botanical Survey of India.	50,000
Total, New Project Proposals		763,000

3) Smithsonian Contribution to the National Science Foundation's Translation Program

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Library, Smithsonian Institution, Museum of Natural History	To accelerate the translation and publication of reference works and monographs in Russian, which represent outstanding requests made by the Smithsonian staff since 1960, 20,000 pages an average of \$23.50 per page (cost includes both translation and publication).	470,000
2. Library, Smithsonian Institution, Museum of Natural History	For the translation and publication of selected Western European and oriental language scientific journals or other serial publications, 1,300 pages at \$23.50 each.	<u>30,000</u>
	Total, Translations	500,000
	Grand Total, Systematic and Environmental Biology	<u><u>3,580,000</u></u>

III. Museum Programs

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Smithsonian Institution, United States National Museum	To provide development opportunities for American museum professionals through in-service training, regional museum surveys, and training symposia in India, Israel, Egypt, Ceylon and Tunisia and to provide exchange visitor grants to bring foreign professionals from the excess countries to enrich American museum programs. This program would complement with foreign currencies the exchange of museum professionals proposed under the United States National Museum Program [see page A-21].	90,000
2. Smithsonian Institution, United States National Museum	To carry out the International Council of Museums' recommendation to establish exhibits laboratories, initially in Israel, India, and Egypt for the training of curators from developing nations and for the construction of scientific and other educational exhibits for circulation among the developing nations as examples of the potential of museum education.	60,000
3. Smithsonian Institution, United States National Museum	To provide advisory services of American museum professionals responding to requests from Israel, Pakistan, India, Egypt, and Tunisia.	25,000
4. Smithsonian Institution, United States National Museum	To improve research collections of the United States National Museum by providing for the purchase and shipment with foreign currencies instead of dollars of unique specimens or collections not available in this country.	45,000

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U. S. Dollars</u>
5. Smithsonian Institution, Traveling Exhibition Service	To defray shipping costs, which would otherwise require dollars, to bring educational exhibits from abroad for circulation to American museums and other educational institutions.	30,000
	Total, Museum Programs	250,000

IV. Astrophysics

A. Ongoing Projects

1. Smithsonian Astrophysical Observatory	To conclude balloon experiments in cooperation with the Tata Institute of Fundamental Research at Colaba, Bombay, India on gamma radiation reaching the earth's upper atmosphere at the magnetic equator.	51,000
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B. New Research Proposals

1. Smithsonian Astrophysical Observatory	To investigate ancient astronomical records of Ceylon and Egypt in connection with historical studies of the stars.	5,000
2. Smithsonian Astrophysical Observatory	To establish in Poland an astrophysical observing station to carry out projects in satellite geodesy.	50,000
3. Smithsonian Astrophysical Observatory	To conduct theoretical studies in celestial mechanics in Egypt in cooperation with the University of Cairo.	14,000
	Total, Astrophysics	120,000

V. International Exchange of Scientific Publications

1. Smithsonian Institution, International Exchange Service	To support costs of ocean freight of IES publications to Burma, Congo (Kinshasa), India, Israel, Pakistan, Poland, Egypt, and Yugoslavia.	20,000
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Total, International Exchange of Scientific Publications 20,000

VI. Grant Administration

<u>Recipient</u>	<u>Project</u>	<u>Grant Expressed in U.S. Dollars</u>
1. Smithsonian Institution, Office of International Activities	To defray costs of inspection and audit of field research sites and costs of negotiation with host governments on program operations.	30,000
	Total, Grant Administration	30,000
	Grand Total	6,000,000

SMITHSONIAN INSTITUTION

FISCAL YEAR 1969 BUDGET

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SMITHSONIAN INSTITUTION
PROGRAM
PLANNING, RESTORATION, AND CONSTRUCTION
1969

The total 1969 request for improvements and additions to the physical plant of the Smithsonian Institution is a response to the real needs generated by new and existing programs. The success of authorized exhibit, research and educational programs depends on a variety of improvements and modification to existing space which are requested under the title "Restoration and Renovation." Construction funds for new buildings and facilities are requested under individual project headings.

All requests for planning, restoration, and construction in fiscal year 1969 total \$32, 485, 000. In view of budgetary limitations and the need to proceed with only the most essential items, we have reviewed, carefully, all requests to identify those items considered as critical. This latter category is a priority increment of \$16, 800, 000 and includes:

--\$660, 000 for the National Zoological Park to continue planning for the next increment in the multiyear improvement program and for costs related to supervision of construction for projects previously authorized. This amount also includes funds for minor improvements of a critical nature which must be applied to existing facilities to keep them in operation until full renovation can be accomplished in the future. It also includes funds to install small heating plants in each building so that the central inefficient plant

can be eliminated. This latter item will contribute to the elimination of air pollution in the vicinity.

--\$14,197,000 for construction of the Joseph H. Hirshhorn Museum and Sculpture Garden. Construction funds are requested to insure continuity in the development of this facility in compliance with a provision of the agreement between the Joseph H. Hirshhorn and the Smithsonian Institution which conditions the gift of this \$25,000,000 art collection to an appropriation for building construction prior to the close of the 90th Congress.

--\$1,943,000 for Restoration and Renovation of Buildings. This is the minimum amount required to provide the most essential items including funds urgently required to relocate the Radiation Biology Laboratory from the basement of the Smithsonian Institution building to some suitable site, funds to complete renovation of the Smithsonian Institution building and the Renwick Gallery (old Court of Claims building), to construct a small laboratory building at the Smithsonian Tropical Research Institute, to provide for improvements to the Fine Arts and Portrait Galleries building, to accomplish feasibility studies for Bicentennial exhibit pavilions at the Museum of History and Technology, and also for a facility to store objects. The feasibility studies will identify and quantify space requirements and construction costs and also determine priorities for future budget requests.

Less critical than the above priority requirements, but still considered essential for 1969, is an additional request for \$15,685,000.

This amount includes:

- \$1,140,000 for the National Zoological Park improvement program to permit resumption of construction which was deferred last year and to regain momentum toward completion of the program. The improvement program has been planned as a continuing process with many interlocking items such as grading, drainage, utility, extensions, temporary animal relocations, and service facilities. Unexpected and unplanned breaks in the program continuity cause difficult management problems and extensions of costly temporary procedures and facilities.
- \$9,500,000 to start construction of the delayed National Air and Space Museum. Plans and specifications are now complete and only an appropriation of construction funds is needed. This building will contribute substantially to overcoming problems relating to storage space, research space, increased and improved visitor space, improved visitor accommodations, and parking.
- \$5,305,000 for Restoration and Renovation of Buildings. This amount includes a variety of items essential to support of Smithsonian activities such as: Improvements to the Smithsonian Institution building yard and installation of a kitchen (\$590,000); rehabilitation of the Arts and Industries building

(\$3,357,000); minor improvements to the Freer Gallery of Art (\$25,000); plans for a new addition to the Freer Gallery of Art (\$150,000); repairs to the Belmont Study Center (\$15,000); improvements to the Barney Studio House (\$30,000); planning for the West Court of the Museum of Natural History and rehabilitation of four elevators in the Museum of Natural History (\$653,000); improvements to storage buildings at Silver Hill (\$175,000); and additional essential feasibility studies (\$50,000).

Amounts requested for each item are justified in the following narratives.

SMITHSONIAN INSTITUTION BUILDING PROGRAM

A P P R O P R I A T I O N S

Project	Total Cost	Available	1969					1972	1973	Additional Required
			1969	1970	1971	1972	1973			
Zoological Park	\$ 20,081,000	\$ 7,588,000	\$ 1,800,000	\$ 2,835,000	\$ 1,818,000	\$ 1,425,000	\$ 1,245,000	\$ 3,370,000		
Hirshhorn Museum	15,000,000	803,000	14,197,000	...	...	...	...	...
Air and Space Museum	52,000,000	1,875,000	9,500,000	40,625,000	...	...	...	...
*Armed Forces Museum	43,210,000	...	...	13,400,000	3,868,000	5,068,000	17,806,000	3,568,000
*Science Building	12,000,000	...	...	1,000,000	1,000,000	10,000,000	...	...
*Administration Building	4,300,000	...	...	...	...	...	1,000,000	3,300,000
Restoration and Renovation										
Smithsonian Institution Building	8,534,000	2,644,000	940,000	400,000	4,000,000	50,000	500,000	...		
Arts and Industries Building	3,357,000	...	3,357,000	...	...	...	...	...
Museum of Natural History	5,653,000	...	653,000	5,000,000	...	...	...	...
Museum of History and Technology	11,220,000	...	...	120,000	100,000	1,000,000	10,000,000	...
Freer Gallery of Art	1,858,000	98,000	175,000	25,000	25,000	1,525,000	...	...
Fine Arts and Portrait Galleries Building	900,000	125,000	150,000	625,000	...	...	...	...
Renwick Gallery	2,350,000	1,850,000	500,000	...	...	...	...	...
Belmont Study Center	122,000	47,000	15,000	...	...	...	...	...
Barney Studio House	35,000	...	30,000	...	...	...	...	...
Chesapeake Bay Center for Field Biology	663,000	...	...	220,000	300,000	66,000	22,000	55,000
Radiation Biology Laboratory	982,000	139,000	843,000	...	...	...	...	...
Smithsonian Tropical Research Institute	500,000	...	100,000	100,000	100,000	100,000	100,000	...		
Silver Hill	175,000	...	175,000	...	...	...	...	...
Feasibility Studies	600,000	250,000	150,000	50,000	50,000	50,000	50,000	...		
TOTAL	\$183,965,000	\$15,419,000	\$32,585,000	\$64,000,000	\$11,261,000	\$19,284,000	\$30,723,000	\$10,293,000		

*Construction authorization required - Priority to be determined

SMITHSONIAN INSTITUTION

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

For necessary expenses of planning, construction, remodeling, and equipping of buildings and facilities at the National Zoological Park, \$1,800,000
~~to remain available until expended.~~

(Department of the Interior and Related Agencies,
1968)

SMITHSONIAN INSTITUTION
CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

Program and Financing (in thousands of dollars)

	Costs to this appropriation				Analysis of 1969 financing			Appropriation required to complete	
	Total estimate	To June 30, 1966	1967 actual	1968 estimate	1969 estimate	Deduct selected resources and unobligated balance, start of year	Add selected resources and unobligated balance, end of year		Appropriation required 1969
32-50-0129-0-1-704									
<u>Program by activities:</u>									
1. Planning, design, and supervision.....	1,346	807	21	158	170	...	190	360	
2. Construction	8,057	2,737	432	944	3,390	2,504	554	1,440	
Total program costs, funded.....	9,403	3,544	453	1,102	3,560	2,504	744	1,800	
Change in selected resources ^{1/}			-169	2,261	-1,666				
10 Total obligations			284	3,363	1,894				
<u>Financing:</u>									
21 Unobligated balance available, start of year.....			-1,752	-3,057	-94				
24 Unobligated balance available, end of year			3,057	94	...				
40 <u>New obligational authority (appropriation)</u>			1,589	400	1,800				
Relation of obligations to expenditures:									
71 Total obligations (affecting expenditures)			284	3,363	1,894				
72 Obligated balance, start of year			321	157	3,248				
74 Obligated balance, end of year.....			-157	-3,248	-888				
90 Expenditures			448	272	4,274				

^{1/} Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1966, \$318 thousand; 1967, \$149 thousand; 1968, \$2,410 thousand; 1969, \$744 thousand.

1. Planning. -- Funds are provided for planning the 1970 capital improvement projects at the National Zoological Park, for advance planning for future projects, and for a vehicular traffic survey.
2. Construction. -- The seventh year's work provides for construction of a restaurant building, minor improvements, and construction of small heating plants as part of a program to eliminate air pollution.

SMITHSONIAN INSTITUTION
 CONSTRUCTION AND IMPROVEMENTS,
 NATIONAL ZOOLOGICAL PARK

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0129-1-704			
SMITHSONIAN INSTITUTION			
21.0 Travel and transportation of persons	3	...	.
25.1 Other services	3	15	
26.0 Supplies	14	...	.
31.0 Equipment	1	...	.
Total Costs, Smithsonian Institution.....	21	15	
ALLOCATION TO GENERAL SERVICES ADMINISTRATION			
25.1 Other services	432	143	1
32.0 Lands and structures .....	...	944	3, 3
Total costs, General Services Administration	432	1, 087	3, 5
Total costs, funded.....	453	1, 102	3, 5
94.0 Change in selected resources ..	-169	2, 261	-1, 6
99.0 Total obligations	284	3, 363	1, 8

NATIONAL ZOOLOGICAL PARK

	<u>Amount</u>
1967 Appropriation	\$1, 589, 000
1968 Appropriation	400, 000
1969 Estimate	1, 800, 000

An appropriation of \$1,800,000 is requested for the seventh year of a continuing development program for improvement of the National Zoological Park. Due to program funding reductions and increased construction periods, the complete construction program is now expected to take fourteen years. A total of \$7,588,000 has been appropriated for the first six years and an additional \$12,493,000 will be requested over the next eight years. All items funded to date have been completed or are ready for construction except a waterfowl pond which is still on the drawing board.

Redevelopment of the National Zoological Park continues to follow the basic land use principles adopted in Master Plan form in 1961 and the following criteria remain in effect:

1. Modernize exhibits and visitor conveniences;
2. Eliminate automobile traffic through the Park and improve parking facilities;
3. Subordinate buildings and structures and increase planting and landscaping;
4. Cooperate with plans to improve Rock Creek Park and River and eliminate air and water pollution;

5. Diffuse and increase science through the study of animals, their health, nutrition, pathology, and behavior.

In fiscal year 1969 advance planning will be started on a new, large feline house and exterior pens. Final plans and specifications will be prepared for aquatic mammals, bears, goats, and canines, all located in the hilly, undeveloped central part of the Zoo. A study will also be made to determine the future visitor and vehicular traffic load which the National Zoological Park will generate and provide guidelines for present design to include appropriate features to handle a reasonable increase in traffic. For planning, a total of \$360,000 is requested. This amount includes \$100,000 for advance planning for the central area of the Park and a traffic control study as a guide for future developments. This amount also includes \$120,000 for the preparation of plans and specifications for exhibition facilities for aquatic mammals, bears, goats, and canines; \$120,000 for construction, inspection, and administration; and \$20,000 for use by the Smithsonian Institution for expert consultation.

An aspect of the National Zoological Park Master Plan relevant to Executive Order 11282 concerning reduction of air pollution is the improvement of the obsolete heating facilities. The long range program for replacement of the out-dated coal-burning central heating plant with smaller gas-burning units incorporated into the design of existing or new buildings would not only increase heating efficiency and therefore lower recurring operating costs, but also end pollution of the atmosphere by the present coal-burning system. As completion of the overall

program is still seven years in the future, the work on heating facilities has been rescheduled for fiscal year 1969, in order to comply promptly with the intent of the President to reduce air pollution. The cost of the modification is estimated to be \$200,000.

Construction will be started on the restaurant building for which planning was previously authorized and for which final drawings and specifications are nearly complete. Completion of this facility is a vital part of a plan to improve visitor service facilities and overcome the present inadequate, overcrowded, unsightly, and unsanitary facility. Construction will also be started on ancillary facilities, utilities, and deferred landscaping. For construction, a total of \$1,440,000 is requested.

SMITHSONIAN INSTITUTION

RESTORATION AND RENOVATION OF BUILDINGS

For necessary expenses of restoration and renovation of buildings owned or occupied by the Smithsonian Institution, as authorized by section 2 of the Act of August 22, 1949 (63 Stat. 623), including not to exceed \$10,000 for services as authorized by 5 U.S.C. 3109, ~~\$1,125,000,~~ to remain available until expended.

\$6,988,000

(Department of the Interior and Related Agencies,
1968)

SMITHSONIAN INSTITUTION
RESTORATION AND RENOVATION OF BUILDINGS

Program and Financing (in thousands of dollars)

	Costs to this appropriation				Analysis of 1969 financing			Appropriation required to complete
	Total estimate	To June 30, 1966	1967 actual	1968 estimate	1969 estimate	Deduct selected resources and unobligated balance, start of year	Add selected resources and unobligated balance, end of year		Appropriation required 1969
32-50-0132-0-1-704								
<u>Program by activities:</u>								
1. Planning, design, and supervision.....	1,676	50	110	648	868	...	...	868
2. Construction.....	10,985	...	195	3,198	5,780	1,472	1,812	6,120
Total program costs, funded	12,661	50	305	3,846	6,648	1,472	1,812	6,988
Change in selected resources ^{1/}			837	566	340			
10 Total obligations.....			1,142	4,412	6,988			
<u>Financing:</u>								
21 Unobligated balance available, start of year			-2,129	-3,287	...			
24 Unobligated balance available, end of year.....			3,287	...	...	
40 <u>New</u> <u>obligational authority</u> <u>(appropriation)</u>			2,300	1,125	6,988			
Relation of obligations to expenditures:								
71 Total obligations (affecting expenditures)			1,142	4,412	6,988			
72 Obligated balance, start of year			71	1,072	4,231			
74 Obligated balance, end of year			-1,072	-4,231	-6,219			
90 Expenditures			140	1,253	5,000			

^{1/} Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1966, \$69 thousand; 1967, \$906 thousand; 1968, \$1,472 thousand; 1969, \$1,812 thousand.

The 1969 funds will provide for the completion of renovation to the Smithsonian Institution building; renovation and improvement to the Arts and Industries building for use as an Exposition Hall; additional improvements in the Fine Arts and Portrait Galleries building and to the Renwick Gallery; mechanical improvements and minor renovation to the Belmont Study Center, the Barney Studio House, and the Freer Gallery of Art; modifications to an existing building to house the Radiation Biology Laboratory; a small laboratory building for the Smithsonian Tropical Research Institute; feasibility studies for future buildings needs of the Institution to include centralized facilities for the Smithsonian Astrophysical Observatory; pavilions on the Museum of History and Technology; storage facilities and master planning for the Chesapeake Bay Center; preparation of plans and specifications for a cafeteria in the Fine Arts and Portrait Galleries building; and preparation of plans and specifications for the construction of additional floors in the Museum of Natural History courtyards.

SMITHSONIAN INSTITUTION
 RESTORATION AND RENOVATION OF BUILDINGS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0132-0-1-704			
SMITHSONIAN INSTITUTION			
21.0 Travel and transportation of persons	2	...	.
25.1 Other services	168	175	1
26.0 Supplies and materials	9	...	.
31.0 Equipment	16	...	.
Total costs, Smithsonian Institution	195	175	1
ALLOCATION TO GENERAL SERVICES ADMINISTRATION			
24.0 Printing and reproduction	1	17	
25.1 Other services	109	365	9
32.0 Lands and structures .....	...	3,289	5,5
Total costs, General Services Administration	110	3,671	6,4
Total costs, funded	305	3,846	6,6
94.0 Change in selected resources	837	566	3
99.0 Total obligations	1,142	4,412	6,9
			C-16

SMITHSONIAN INSTITUTION

RESTORATION AND RENOVATION

An appropriation of \$7,198,000 is requested for the following projects:

Smithsonian Institution Building	\$ 940,000
Arts and Industries Building	3,357,000
Fine Arts and Portrait Galleries Building	150,000
Freer Gallery of Art	175,000
Renwick Gallery	500,000
Belmont Study Center	15,000
Barney Studio House	30,000
Radiation Biology Laboratory	843,000
Smithsonian Tropical Research Institute	100,000
Museum of Natural History	553,000
Silver Hill	175,000
Feasibility Studies	150,000
	<hr/>
	TOTAL
	\$6,988,000
	<hr/> <hr/>

SMITHSONIAN INSTITUTION BUILDING

An appropriation of \$940,000 is requested for additional restoration and renovation of the Smithsonian Institution building and grounds.

With funds previously appropriated by the Congress the first major interior restoration of the historically important and well-known Smithsonian "Castle" since its construction in 1855, is now underway. This interior renovation work along with plans for the Joseph H. Hirshhorn Museum and Sculpture Garden and new government buildings along Independence Avenue are indications of major esthetic improvement and functional usage of the south side of the Mall and its adjacent areas. There remains, unfortunately, an unsightly scar in the center of this magnificent area. That is the grounds around the Smithsonian Institution building, including the South Yard along Independence Avenue. The entire area is an unsightly collection of sheds, parking areas, rockets, fencing, dirt paths, patchwork paving, and bare lawns and is an uncontrolled focal point for visitors crisscrossing the Mall and passing between buildings. General improvement should be made now but in accordance with a plan looking toward the eventual development of the South Yard as an appropriate entrance to the Smithsonian Institution from Independence Avenue. A terminus for the new Tenth Street Mall through the Southwest would be provided by this South Yard. In the immediate future a variety of improvements to provide space for visitors to walk and rest should be provided as well as new

paving and landscaping to improve appearance. Funds in the amount of \$500,000 are requested for this purpose.

Improvement to the grounds and electrical renovation of the building suggest that this is the most appropriate time to consider lighting improvements, including spot lighting architecturally important features of the building. To install concealed conduit both inside and outside the building, installation of spot lights, increased transformer capacity, control equipment for the exterior of the building, and area lighting, funds in the amount of \$350,000 are requested.

Economy demanded deferment from the fiscal year 1968 budget of construction funds for a kitchen in the Smithsonian Institution building. Funds in the amount of \$150,000 are requested to install this kitchen by separate contract after completion of the general building renovation. There is a need for a small staff dining room for those employees on the south side of the Mall in the Smithsonian Institution building, the Freer Gallery of Art, and the Arts and Industries building. The 300 employees in these buildings must walk one-half mile to the already overcrowded cafeteria in the Museum of History and Technology or even further to public restaurants on Pennsylvania Avenue. By providing a dining room in the Smithsonian Institution building, employees will be able to obtain a mid-day meal within the prescribed 30-minute period.

The new Forrestal Building, now under construction for the Department of Defense, will add some 7,000 employees to the immediate environs of the Smithsonian Institution building.

ARTS AND INDUSTRIES BUILDING

An appropriation of \$3,357,000 is requested for the restoration and renovation of the Arts and Industries building for use as an Exposition Hall to accommodate a wide variety of exhibitions, displays, and special events.

The Congress has appropriated funds in the amount of \$133,000 for the preparation of architectural plans and specifications for this renovation and restoration. Those plans and specifications are now being completed.

The building receives more than 2 million visitors a year into exhibition halls uncomfortably warm during many months of the year. The building is inadequately lighted during the summer night opening hours and the dark hours of winter days and has been badly scarred by the removal of exhibits to the new Museum of History and Technology Building. The first Wright airplane, the Spirit of St. Louis, the GEMINI capsule, photography exhibits, and special exhibits honoring states are viewed now in a setting that deprives millions of visitors of an appropriate impression of the Nation's concern for the preservation and exhibition of its heritage.

The plans provide for the installation of heating, ventilating, and air conditioning systems for the entire building; office work space and reference collection areas on the second floor level; the installation of passenger and freight elevators; alarm systems and telephone facilities; replacement of deteriorated interior finishes, plastering, interior and exterior painting; installation of public

restrooms and plumbing changes; and for related improvements to conform to current standards of appearance, convenience, utility, and safety.

The building, described as modernized Romanesque, was constructed in 1881. It is a one-story brick structure with 163,000 square feet of floor space. An exposed steel roof truss system supports a metal covered roof. Basement and second and third floor levels exist in pavilions at the four corners. Partial second floor levels have been installed and a mezzanine borders the east, west, and south halls. The four main halls are in the form of a cross with the rotunda located at the center. These main halls combined with the adjoining smaller exhibit spaces on the main floor provide 80,000 square feet of extremely adaptable space with ceiling heights ranging from 14 feet under the galleries to 42 feet in the main hall.

The large open areas in the building, free of structural or architectural interferences, combined with the high ceilings, arched openings, and general feeling of spaciousness, established the "Exposition" character of the structure. The decision of the Board of Regents of the Smithsonian Institution to continue using the major portion of this building for exhibition purposes furnishes an unparalleled opportunity to present industrial, technological, architectural, scientific, and other large scale exhibits and similar presentations which cannot be accommodated in other museum buildings.

The building has been declared to be a "Landmark of Importance" by the Joint Landmarks Committee of the National Capital Planning Commission and the Commission of Fine Arts. Its location on the Mall adjacent to other buildings of the Institution provides a convenient and accessible facility for the visiting public. The installation of temperature and humidity control systems in this building will provide a necessary improvement for the comfort of the visitors and staff and for protection of exhibits.

Renovation of portions of this building for staff offices and facilities is a critical part of a program to accommodate authorized staff and activities of the Smithsonian Institution without leaving the Mall. Some relief will be realized upon completion of renovation of the Smithsonian Institution building. Prompt action to complete the Arts and Industries building will provide further relief and, hopefully, prevent the need for extensive rental office space. Since it is difficult to rent office space in Washington, D. C. , for less than a five-year lease period, and since moving a portion of the administrative staff away from the Institution will cause operating difficulties, every effort is being made to satisfy immediate needs by consolidating into space now available by means of modifications or subdividing space. Without an orderly continuation of our program for renovation of buildings we anticipate a need for additional rental appropriations.

The cost estimate presented to the Congress with the fiscal year 1967 budget justification for this project indicated that construction costs were estimated to be \$1,950,000. This amount has since been

found by the General Services Administration to be inadequate due to construction cost increases and to the work actually involved in the mechanical and electrical systems in the building. The vintage and condition of the systems are such that complete replacement is required. The major expense relates to all new electrical service, transformer, and transformer-vault. In addition, the installation of new heating, ventilating, and air conditioning has been found to be more complex than expected. Therefore, funds in the amount of \$3,357,000 are required.

With this appropriation, construction can be started in the summer of 1968 and the building can be ready for occupancy by January 1970.

FINE ARTS AND PORTRAIT GALLERIES BUILDING

Funds in the amount of \$150,000 are requested to accomplish certain improvements to the Fine Arts and Portrait Galleries building.

During general renovation of the building it was unexpectedly found necessary to remove an existing elevator which opened into the center of a major exhibition hall and presented an unsatisfactory egress pattern. The elevator was, however, included in the design as part of the system for visitor access to upper floors and subsequent studies revealed that a new elevator at an appropriate location is absolutely necessary to provide adequate facilities for visitor circulation. Installation of an additional passenger elevator on the G Street side of the building is estimated to cost \$75,000.

One floor of one wing in the building remains unfinished due to a reduction in contract scope during construction to insure sufficient funds for critical changes caused by latent conditions. It was thought that this space could be used for future expansion but is required now for administrative purposes and should be rehabilitated for offices and work space at an estimated cost of \$50,000.

It is expected that visitor attendance in the new galleries will parallel the experience in other Institution buildings and that large numbers of people will spend several hours at a time in the building. Due to the limited size and number of public restaurants in the vicinity of the building and the distances which the visiting public must walk from parking facilities, a public cafeteria or snack bar in the building is necessary. Funds in the amount of \$25,000 are requested for preparation of plans and specifications for this public service facility.

FREER GALLERY OF ART

An appropriation of \$175,000 is requested for an addition and minor improvements to the Freer Gallery of Art.

With the increased activity and interest in Oriental studies, additional space is urgently required to house work and study areas, laboratories, office and library facilities. The laboratories and work areas are specifically needed to allow implementation of the newest scientific methods for preservation and restoration of art. As the original Deed of Gift does not permit removal of the art objects from the Gallery, these facilities must be in the form of a building addition. Therefore, \$150,000 is requested for planning an addition to be built below-grade in order to preserve the beauty of the existing building on the eastern side of the Gallery.

To maintain the excellent condition of the Freer Gallery a program of minor repairs and improvements is desired. During fiscal year 1969 the mortar joints in the exterior masonry work should be recaulked with minimum landscaping and a sprinkler system installed for the larger lawn areas at a cost of \$10,000. The glass in the courtyard and the north and south entrances is of a poor quality and unsightly and should be replaced with a higher quality at a cost of \$5,000.

Replacement of the major portion of the electrical wiring in the Freer Gallery is required at an estimated cost of approximately \$10,000. Portions of this electrical system have not been improved since its original installation and deterioration constitutes a fire hazard in addition to posing operational difficulties.

RENWICK GALLERY

An appropriation of \$500,000 is requested to continue a program of historical restoration of portions of the old Court of Claims building on Lafayette Square.

Renovation work to convert the building into a gallery of American arts, crafts, and design is in progress and should be completed during 1968. Funds appropriated will be used in the most effective manner to insure early occupancy of the building. It has been determined that a fully creditable job of restoration will require an additional \$500,000. Although a usable facility is being provided, the historical importance of the building and its monumental location, adjacent to the Blair House, Lafayette Square, and the White House, are important and we request funds to accomplish the best possible result.

The additional funds will be used to: install a birdproofing system to protect the recently cleaned and restored stonework; restore a cast iron railing on the roof to match early photographs; install special exhibit lighting to blend with the interior; restore original interior finishes and surfaces where possible; construct a loading ramp and service entrance on the Seventeenth Street side; and restore 11 statues, each seven feet in height, which originally occupied niches on the Pennsylvania Avenue and Seventeenth Street sides of the building. The statues were executed by Moses Ezekiel (1844-1917), a native of Richmond, Virginia, and were removed from the building after the Government bought the old Corcoran Gallery in 1901.

The statues are owned now by the Norfolk Museum of Arts and Sciences and are exhibited at the Botanical Garden of the City of Norfolk. The statues represented the sister arts of sculpture, painting, architecture, and engraving and include Phidias, Raphael, Michaelangelo, Albrecht Durer, Titian, Rubens, Rembrandt, Murillo, Canova, and the American sculptor Thomas Crawford. Reproductions will be cast from the original statues and placed in the original positions. Only in this way can the building hope to live up to the expectations of President Johnson and the Commission of Fine Arts who expressly saved this historic building, the first Art Gallery in the United States created for that purpose and still standing.

BELMONT STUDY CENTER

An appropriation of \$15,000 is requested for the Belmont Study Center located near Elkridge, Maryland.

Funds will be used to install air conditioning units in this 11,000 square foot building and to provide septic tanks and a small parking area.

The study center initiated operations in March 1967 and will be used full time for conferences, seminars, meetings, and study groups. To insure effective full time use during the summer months, it is mandatory that additional air conditioning units be provided for human comfort. The study center is a two-story building with meeting and dining facilities on the first floor and guest rooms on the second floor. The building is of combination masonry and frame construction, with a pitched, gabled roof. Since some of the sleeping rooms are under the roof surface and without a large insulating attic space, they become unbearable during hot weather.

There are two buildings on the site, other than the main study center, that have toilet rooms. To eliminate a source of pollution to a nearby creek, it will be necessary to install septic tank systems.

The only parking space now available is along the entrance road. A small gravel-surfaced area will be provided with funds requested.

BARNEY STUDIO HOUSE

An appropriation of \$30,000 is requested for modification and improvements to the Barney Studio House at 2306 Massachusetts Avenue, Washington, D. C., deeded to the Smithsonian Institution by gift of Mrs. Alice Pike Barney in 1960 for the encouragement of art activities in our Nation's Capital.

The building has been improved for safety and the mechanical and electrical systems have been improved. To complete the renovation, it will now be necessary to replace the plaster, replace some millwork and trim and paint.

RADIATION BIOLOGY LABORATORY

An appropriation of \$843,000 is requested to complete relocation of the Radiation Biology Laboratory to a new site.

Comprehensive research to study the effects of light on plant growth started at the Smithsonian Institution in 1928. Within a few years the Institution occupied a position at the forefront of this specialty and has continued to maintain that position. The Smithsonian Radiation Biology Laboratory as it is now known, has pioneered in the development of solar radiation instruments for measuring biological responses. Today the laboratory maintains the only solar radiation calibration standards for calibration of instruments from all over the world.

Recognizing the increasing importance of research on the effects of sunlight on plant and animal growth and the need for an acceleration of efforts to apply modern scientific methods to close some of the information gaps in our knowledge, the Smithsonian Institution in 1965 permitted the Radiation Biology Laboratory to expand into a portion of the basement in the Smithsonian Institution Building.

During the next few years an unforeseen expansion of technology and methodology in biological research occurred and the Radiation Biology Laboratory expanded in increments, by adding specialized equipment and by increasing the scope of activities until all basement space became occupied, then overcrowded. The cumulative result of unplanned and unexpected developments is a completely intolerable situation for a research activity.

Although the laboratory has now expanded into 40,000 square feet of space, including several sheds in back of the Smithsonian Institution building, it is not possible to continue to perform at the level of modern-day science with its concomitant explosion of knowledge and technological advances.

In response to a request for funding in fiscal year 1968, the Congress appropriated \$139,000 to start moving the laboratory from the basement of the Smithsonian Institution building to a new location.

The General Services Administration is assisting the Smithsonian Institution in its search for a new location. With funds now appropriated, plans will be prepared to install laboratories for biochemistry, electron microscopy, plant physiology, cytology, and growth rooms in the new building. Prompt removal of these facilities from the basement of the Smithsonian Institution building will permit the long delayed renovation of that building to proceed in an orderly manner.

A substantial amount of work will remain to make a new facility for the Radiation Biology Laboratory fully operational and to accomplish an orderly move without interrupting or losing momentum on vital experimental activities.

Providing facilities and relocating the remaining laboratories, including the carbon dating laboratory, the shops, support facilities and solar radiation measuring equipment and rehabilitating will cost an additional \$593,000. All work will be accomplished in the most economical manner. Since the facility is a laboratory and not an office building, it will not be necessary to apply expensive finish treatment.

A precise temperature humidity control system is vital to plant growth studies. The estimated cost of a system providing the required degree of control and reliability is \$150,000.

Since a portion of growth study experiments must be conducted under natural sunlight, a greenhouse is necessary. The existing greenhouse located in the South Yard of the Smithsonian Institution building can be enlarged and installed at the new site. This facility is estimated to cost \$100,000.

This request will complete all major improvements necessary to support the activities of the Radiation Biology Laboratory.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

An appropriation of \$100,000 is requested for a general purpose laboratory building to be constructed in the Panama Canal Zone for use by the Smithsonian Tropical Research Institute.

A small single-story masonry building with approximately 10,000 square feet of floor space is required to support field research activities in the Canal Zone and the Isthmus of Panama.

The building will be a low-cost structure with a minimum of built-in facilities to permit flexibility in accommodating a variety of uses as future needs require. Partitions will be provided as needed to section off portions of the building for research experiments. The building will also be used to house and protect research equipment. Animal hold cages and pens will be constructed outdoors adjacent to the building.

At the present time scientists conducting experiments or collecting programs in the Isthmus have no place to keep equipment, or to use as a base of operations, or to keep collections except the Barro Colorado Island in the Canal or their private homes. This proposed general purpose laboratory building, to be constructed on land to be made available by the Panama Canal Company, will provide this needed facility.

MUSEUM OF NATURAL HISTORY

Funds in the amount of \$553,000 are requested for the preparation of plans and specifications to provide additional building space in the courtyards of the Museum of Natural History, and for the modification of four passenger elevators.

With funds appropriated by the Congress in fiscal year 1967, a study is being prepared and is sufficiently complete to confirm the feasibility of constructing additional floors in the courtyards to match the seven floor levels in the adjacent building. This will provide approximately 100,000 square feet of additional floor space. Plans and specifications will cost \$300,000.

The ground floor of the new area will provide space for a well-designed library to house the book collection in the Museum of Natural History and relieve the critically overcrowded and dangerous library space presently used. The adjacent ground floor in the existing building will be converted to a cafeteria to serve the visiting public. There are, at present, no existing dining facilities in this Museum.

The remaining floors will be used for laboratories and work areas and will provide space for the Department of Entomology and portions of the Department of Botany, which are at present located in inadequate and unsatisfactory rented space at Lamont Street, N. W.

This will permit consolidation of all departments of the Museum of Natural History into one building and will be a landmark in the development of the Smithsonian Institution. The community of scientists from each

specialty interacting within the confines of one building will most certainly contribute to the highest quality of scholarly achievement and service to the public.


Modification of four passenger elevators in the Museum is urgently needed. These elevators are in constant use by great numbers of visitors to the Museum and alterations are required to maintain them to an acceptable aesthetic and safety standard. The work is estimated to cost \$253,000.

SILVER HILL

An appropriation of \$175,000 is requested to renovate two prefabricated metal storage buildings at the Silver Hill storage facility.

One building is used by the Museum of Natural History for storage of mammal skeletons and other large material. To provide an effective study area for scientists using this material and to preclude the need to provide transportation to and from the Mall, a laboratory can be provided by constructing partitioning, utilities, lighting, heating, and air conditioning at a cost of \$125,000.

Another large open storage building is used by the Museum of History and Technology. Although the open space is desirable for large objects, it is difficult to effectively manage storage of small objects. It is proposed, therefore, that partitions, utilities, heating, and air conditioning be provided to section off a space for small items and for items requiring controlled conditions for preservation. This work is estimated to cost \$50,000.



FEASIBILITY STUDIES

Funds in the amount of \$150,000 are requested to finance feasibility studies of the future building needs of the Smithsonian Institution. These studies are needed to provide the basis for determining the scope of buildings and facilities, location, estimated cost, recommendations for financing, and any necessary legislation.

The Smithsonian Astrophysical Observatory at Cambridge, Massachusetts has been expanding its authorized function. To meet the increasing demands for space in this expanding discipline, a feasibility study will be prepared to determine the size and type of technical facilities required for its present and future requirements: laboratories, offices, workrooms, and storage spaces. The study will consider the opportunities and related costs for expanding the presently leased buildings and the comparative merits of constructing a Smithsonian Institution building for the Observatory.

The Smithsonian Institution is destined to play a vital and central role in the celebration of the Bicentennial of the American Revolution during the coming decade. To accommodate special exhibits covering the American Revolutionary period and an unprecedented influx of Bicentennial visitors, it is proposed that two exhibition pavilions be added to the Museum of History and Technology. This plan would also enable the special exhibits in the pavilions to be viewed in the context of the Museum's permanent displays relating

the 200 years of National development. Funds to allow a study of the feasibility of this proposal are requested.

The Chesapeake Bay Center needs certain research facilities, roads, and utilities to support future programs. Rather than permit indiscriminate development of the area with construction of facilities on an "as-need" basis, a feasibility study to develop a Master Plan is anticipated. A coordinated design for roads, drainage, sewage disposal, trash disposal, and other construction is needed to protect the ecology of the area from unnecessary contamination and to protect the preserve for scientific studies. This feasibility study will develop the scope and cost for future improvements.

Projected rates of acquisition from the past into the future indicates that the Smithsonian Institution must plan now to solve future storage problems. A feasibility study is needed to study electronic and automatic methods of storage and retrieval of great numbers of objects. The optimum distance between exhibit buildings, science activities, and storage facilities should be determined. Continued preservation of the history of our heritage can only be assured if studies are started now on these critical questions.

SMITHSONIAN INSTITUTION

CONSTRUCTION

an additional amount
for necessary

~~For necessary expenses of the preparation of plans and specifications
for the construction of the Joseph H. Hirshhorn Museum and Sculpture Garden, \$803,000, to remain available until expended: *Provided*,
That such sums as are necessary may be transferred to the General Services Administration for execution of the work.~~ and for \$14,197,000

(Department of the Interior and Related Agencies,
1968)

SMITHSONIAN INSTITUTION
CONSTRUCTION

Program and Financing (in thousands of dollars)

	Costs to this appropriation				Analysis of 1969 financing				
	Total estimate	To June 30, 1966	1967 actual	1968 estimate	1969 estimate	Deduct selected resources and unobligated balance, start of year	Add selected resources and unobligated balance, end of year	Appropriation required 1969	Appropriation required to complete
32-50-0133-0-1-704									
<u>Program by activities:</u>									
1. Planning, design, and supervision.....	1,285	...	...	579	306	224	400	482	...
2. Construction.....	13,215	...	...	...	5,210	...	8,005	13,215	...
3. Furnishings.....	500	...	...	...	...	...	500	500	...
Total program costs, funded.....	15,000	...	...	579	5,516	224	8,905	14,197	...
Change in selected resources ^{1/}				184	8,721				
10 Total obligations				763	14,237				
<u>Financing:</u>									
21 Unobligated balance available, start of year .....				...	-40				
24 Unobligated balance available, end of year				40	...				
40 <u>New obligational authority (appropriation)</u>				803	14,197				
Relation of obligations to expenditures:									
71 Total obligations (affecting expenditures)				763	14,237				
72 Obligated balance, start of year .....				...	189				
74 Obligated balance, end of year				-189	-9,421				
90 Expenditures				574	5,005				

^{1/} Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1968, \$184 thousand; 1969, \$8,905 thousand.

Construction. -- This provides for the construction of the Joseph H. Hirshhorn Museum and Sculpture Garden. The proposed museum and sculpture garden will accommodate a collection of art and sculpture valued at over 25 million dollars, a gift to the people of the United States by Joseph H. Hirshhorn.

SMITHSONIAN INSTITUTION
 CONSTRUCTION
 OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-0126-0-1-704			
SMITHSONIAN INSTITUTION			
25.1 Other services (costs).....		25	...
<u>Allocation to General Services Administration</u>			
24.0 Printing and reproduction.....		4	12
25.1 Other services		550	510
32.0 Lands and structures.....		...	4,994
Total costs, General Services Administration.....		554	5,516
Total costs, funded		579	5,516
94.0 Change in selected resources.....		209	8,721
99.0 Total obligations.....		788	14,237

JOSEPH H. HIRSHHORN MUSEUM AND SCULPTURE GARDEN

	<u>Amount</u>
1968 Appropriation	803, 000
1969 Estimate	\$14, 197, 000

An appropriation of \$14, 197, 000 is requested for construction of the Joseph H. Hirshhorn Museum and Sculpture Garden.

The President, on May 17, 1966, requested the Congress to enact legislation to authorize acceptance of the Hirshhorn Collection of sculpture and paintings. In his message to the Congress, the President recalled the great tradition of private contributions which have enriched the cultural life of this city. He recalled James Smithson's bequest which led to the establishment of the Smithsonian Institution in 1846; William Corcoran's founding of his art gallery in 1859; Charles Freer's donation of his collection and the gallery which opened in 1922; the gift of Andrew Mellon which was accepted in 1937; and now the gift of Joseph Hirshhorn of his collection of contemporary art.

This is a conditional gift of a large collection of nearly 5, 000 paintings and drawings and over 1, 500 pieces of sculpture. It has been conservatively valued at \$25, 000, 000 and is undoubtedly worth much more. Mr. Hirshhorn will also provide \$1, 000, 000 for purchases for the collection. The terms of the gift require that the Smithsonian Institution obtain legislation and appropriations for the construction and operation of a museum and garden of sculpture on the Mall. A further requirement is that the necessary appropriation be obtained before the end of the 90th Congress.

The Congress has responded favorably to the President's request. By the Act of November 7, 1966, the Congress provided the site on the Mall and provided statutory authority for the appropriation of construction and operating funds. In a companion Act approved on November 2, 1966, the Congress authorized the Secretary of the Army to construct an addition to the existing Armed Forces Institute of Pathology at Walter Reed Army Medical Center. This will house the Medical Museum and a medical research unit now housed in the existing building at Seventh Street and Independence Avenue, the site of the Hirshhorn Museum.

The Congress also provided preliminary planning funds and has appropriated \$803,000 for the preparation of contract drawings and specifications for the Hirshhorn Museum and Sculpture Garden. This request for construction funds will not exceed the amount of \$15,000,000 authorized to be appropriated for planning and construction of the museum and garden of sculpture.

The authorizing legislation appropriates the Mall area between Seventh and Ninth Streets and Independence Avenue and Jefferson Drive to the Smithsonian Institution as the permanent site of the Museum. The Act also makes available to the Smithsonian Institution, as the permanent site of a sculpture garden, the area bounded by Seventh Street, Ninth Street, Jefferson Drive, and Madison Drive.

The legislation provides further that the Smithsonian Institution shall cooperate with the Secretary of the Interior so that the development and use of the sculpture garden are consistent with the open space concept of the Mall, for which the Secretary of the Interior is

responsible, and with related developments regarding underground garages and street development.

The Mall site is situated in the midst of the Smithsonian Institution complex of museums and art galleries. It is the location which will be most convenient to the millions of visitors who crowd the Mall and who will visit the museum and sculpture garden each year.

This is the only remaining site of appropriate size and location on the Mall for the proper display of this large collection of sculpture and painting. The clearance of this area along Independence Avenue which is now partially occupied by the Armed Forces Institute of Pathology Annex will make it possible to combine this four-acre tract with the adjoining eight acres lying to the north, from Jefferson Drive to Madison Drive between Seventh Street and Ninth Street. This will form an unrivaled site for the museum and sculpture garden, a total of 12 acres.

It should be noted that the site lies within the Mall area contemplated by the Act of May 17, 1938, as the site for a Smithsonian Institution gallery of art which may be assigned for that purpose by the President.

The Master Plan for the Mall, recently developed for the Secretary of the Interior who is charged with the development of the Mall as a public park, visualizes the removal of the Armed Forces Institute of Pathology Annex building and erection of a building such as the Hirshhorn Museum for public use and interest at this location.

In a letter to the Senate Committee on Public Works, Nathaniel Owings of the architectural firm of Skidmore, Owings and Merrill advised that the proposed gallery and garden to house the Hirshhorn Museum is in complete accord with the Master Plan for the Mall.

A preliminary design for the museum and sculpture garden has been completed by the architect and has been well received and approved by the Commission of Fine Arts and the National Capital Planning Commission. Completion of final construction drawings and specifications is scheduled to permit construction to proceed upon receipt of an appropriation.

SMITHSONIAN INSTITUTION

CONSTRUCTION OF NATIONAL AIR AND SPACE MUSEUM

For necessary expenses of the construction of a building for the National Air and Space Museum for the use of the Smithsonian Institution, as authorized by the Act of September 6, 1958, as amended (72 Stat. 1714; 80 Stat. 311, 312), including not to exceed \$25,000 for services as authorized by section 15 of the Act of August 2, 1946 (5 U. S. C. 55a), at rates not to exceed \$100 per diem for individuals, \$9,500,000, to remain available until expended.

SMITHSONIAN INSTITUTION
CONSTRUCTION OF NATIONAL AIR AND SPACE MUSEUM

Program and Financing (in thousands of dollars)

	Costs to this appropriation				Analysis of 1969 financing			
	Total estimate To June 30, 1966	1967 actual	1968 estimate	1969 estimate	Deduct selected resources and unobligated balance, start of year	Add selected resources and unobligated balance, end of year	Appropriation required 1969	Appropriation required to complete
32-50								
<u>Program by activities:</u>								
Construction (total program costs, funded).....	9,500	...	...	7,000	...	2,500	9,500	
Change in selected resources ^{1/}				2,500				
10 Total obligations (Allocation to General Services Administration, object class 32.0)				9,500				
<u>Financing:</u>								
40 New <u>obligational authority</u> (<u>appropriation</u>)				9,500				
Relation of obligations to expenditures:								
71 Total obligations (affecting expenditures)				9,500				
74 Obligated balance, end of year				-7,200				
90 Expenditures				2,300				

^{1/} Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1969, \$2,500 thousand.

Construction. -- This provides for the construction of the first stage (substructure) of the National Air and Space Museum. This museum will display unequalled National Collections of air and spacecraft. The proposed museum will also present the mathematics, physics, fuel chemistry, metallurgy, and broad engineering bases of aeronautics and space exploration. It will become a national center of education and exhibition in the fields of air and space.

NATIONAL AIR AND SPACE MUSEUM

	<u>Amount</u>
FY 1969 Estimate	\$9, 500, 000

An appropriation of \$9, 500, 000 is requested for construction of the first stage of the National Air and Space Museum.

Appropriation of funds for the construction of a suitable building to house the Nation's air and space collections will be the successful culmination of 21 years of Congressional encouragement and legislative action in the interest of air and space science and history.

Starting with the Act of August 12, 1946, the Congress established the National Air Museum as a part of the Smithsonian Institution. The Congress included provisions for selecting a site for a National Air Museum building to be located in the Nation's Capital. By the Act of September 6, 1958, the Congress designated a site for a building to be on the Mall from Fourth Street to Seventh Street, Independence Avenue to Jefferson Drive. Planning appropriations in the amount of \$511, 000 and \$1, 364, 000 have been made available to the Smithsonian by the Congress for the fiscal years 1964 and 1965, respectively. In 1966 the Congress enacted legislation authorizing the construction of the National Air and Space Museum. Construction plans and specifications for the proposed museum building are completed. Now it is appropriate to request the Congress for a construction appropriation in order to consummate the successive authorizations for this exhibition and education center which started in 1946.

The National Air and Space Museum will be notable in two particular aspects. First, it will be visited by unprecedented crowds of citizens from every State in the Union. In our existing World War I hangar where only six air and space craft are on exhibition, but including the original space capsules of John Glenn and Alan Shepard, we packed in 1,700,000 visitors last year. In the new Museum of History and Technology we now receive five million visitors a year and we can predict with complete confidence therefore that in the first year of the National Air and Space Museum, well over five million visitors will come and that the crowds will increase steadily in the years ahead.

Here will be displayed the full panoply of American achievement in air and in space:

- the original Wright Brothers Flyer, first to fly at Kitty Hawk in 1903
- General Billy Mitchell's SPAD of World War I
- the U. S. Navy's NC-4, first to fly across the Atlantic Ocean, 1919
- General Jimmy Doolittle's Schneider Cup racer, 1925
- Lindbergh's "Spirit of St. Louis," first solo across the Atlantic, 1927
- Wiley Post's "Winnie Mae," flown twice around the World, 1931-1933
- the Bell X-1, first airplane to fly faster than sound.

And now the spacecraft:

- first U. S. Earth satellites, Explorer I and Vanguard I
- TIROS - first U. S. Weather Satellite
- Alan Shepard's Freedom 7 and John Glenn's Friendship 7,
manned orbiting spacecraft
- Gemini and Apollo, manned spacecraft
- and the pioneering rocket launch vehicle--Atlas, Jupiter,
Agena.

The second important aspect of this Museum is its great education and research potential. Not only will our youth and our citizens of all ages respond to the inspiration of seeing these history-making air and spacecraft--but also scholars, historians, and professionals in many fields of learning will come to work with the Museum's unrivaled reference collections. Thus will be created a center of educational and historical research.

We know that this Museum will open a new dimension in research in air and space science, technology, and history. For the first time in our Nation's history these developments and achievements will become accessible and apparent to the scholar and to the general public alike.

Functioning as a center of exposition and education, the building will provide capacity both for large crowds of visitors and for a comprehensive array of air and spacecrafts, instrumentation, engines, models, and historical reference documents. Exhibitions will be

changed periodically and a series of most timely presentations will continually be on display. The building design will provide excellent flexibility for its functional requirements. The location on the Mall as designated by the Congress is most appropriate, being immediately adjacent to the other Smithsonian Institution museums where it will be most convenient to the crowds of visitors. The location is adjacent, also, to the Headquarters of the National Aeronautics and Space Administration and the Federal Aviation Agency.

The Congress has directed that the national development of flight shall be memorialized; that air and space objects of historical and scientific significance shall be preserved and displayed; and that educational material for the study of air and space history and development shall be provided. The Congress has dedicated the site for the Museum and has appropriated funds for the preparation of plans and specifications.

With plans and specifications now complete a phased construction program is recommended following the precedent for the new Department of Labor building to be constructed in Washington, D. C., for which first stage appropriations were authorized in fiscal year 1967. An appropriation of \$9,500,000 is requested for fiscal year 1969 for the construction of the first stage of the National Air and Space Museum. An additional \$42,400,000 will be requested in fiscal year 1970 to complete construction.

SMITHSONIAN INSTITUTION
 MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-9999-0-1-704			
Relation of obligations to expenditures:			
71 Total obligations (affecting expenditures)	1,717	827	...
72 Obligated balance, start of year..	1,793	588	50
74 Obligated balance, end of year...	-588	-50	...
90 Adjustments in expired accounts..	7	...	...
Expenditures	2,928	1,365	50
Above expenditures distributed as follows:			
Museum of History and Technology.	830	646	50
Additions to Natural History Building	348	482	...
Remodeling Civil Service Commission Building	1,749	218	...
National Air and Space Museum....	1	19	...

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SMITHSONIAN INSTITUTION

FISCAL YEAR 1969 BUDGET

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REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau
Trucks under 12,500#
 Vehicle Type 4x2's Date September, 1967

Domestic

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 21		+ 20		+ 22	
2. Add vehicles on order but outstanding, July 1	+		+ 2		+	
3. Deduct vehicles included in A1 & waiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 21		XXXXXXXXXXXXX + 22		XXXXXXXXXXXXX + 22	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+ 2		+ 1		+ 2	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 2	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....		(.....		(.....	
2. Newly scheduled disposals accomplished	+ 1		+ 1		+ 1	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1	
a. For replacement (non-add):	(.....		(.....		(.....	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....		(.....		(.....	
(2) Donation to non-Federal recipients	(.....		(.....		(.....	
(3) Sold	(.....		(.....		(.....	
(4) Other (Explain) <u>Junk</u>	(.....		(.....		(.....	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....		(.....		(.....	
2. Meeting mileage standard only	(.....		(.....		(.....	
3. Meeting age standard only	(.....		(.....		(.....	
4. Not meeting either standard (Explain)	(.....		(.....		(.....	
5. Total (D1+D2+D3+D4=C4a)	(.....		(.....		(.....	
E. Net Fleet, June 30 (A4+B4-C4):	22 + 22		22 + 22		23 + 23	
1. Deduct new vehicles ordered but not received	- 2		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	20		22		23	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)	22		22		23	
H. Obligations and related data:						
1. Obligations for vehicles ordered	\$ 5,197		\$ 3,000		\$ 6,000	
2. Cost of vehicles acquired otherwise	\$		\$		\$	
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau _____

Domestic

Trucks under
 Vehicle Type 12, 500# 4x4's Date September, 1967

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 14		+ 16		+ 16	
2. Add vehicles on order but outstanding, July 1	+ _____		+ 1		+ _____	
3. Deduct vehicles included in A1 awaiting disposal	- _____		- 1		- _____	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 14		XXXXXXXXXXXXX + 16		XXXXXXXXXXXXX + 16	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+ 1		+ 3		+ 1	
2. Acquired by forfeiture	+ _____		+ _____		+ _____	
3. Acquired by transfer	+ 2		+ _____		+ _____	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 3		XXXXXXXXXXXXX + 3		XXXXXXXXXXXXX + 1	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+ _____		+ 1		+ _____	
3. Newly scheduled disposals, unaccomplished June 30	+ 1		+ _____		+ _____	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - _____	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 16	+ 16	+ 16	+ 16	+ 17	+ 17
1. Deduct new vehicles ordered but not received	- 1		- _____		- _____	
2. Add newly scheduled disposals not accomplished (C3)	+ 1		+ _____		+ _____	
3. Add carryover disposals not accomplished (A3-C1)	+ _____		+ 16		+ 17	
4. Actually on hand, June 30 (E-E1+E2+E3)	16		16		17	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	_____		_____		_____	
2. Rented commercially	_____		_____		_____	
3. Total (F1+F2)	XXXXXXXXXXXXX + _____		XXXXXXXXXXXXX + _____		XXXXXXXXXXXXX + _____	
G. Total vehicles available full time (E+F3)		16		16		17
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$ 1,909		\$ 7,100		\$ 1,900
2. Cost of vehicles acquired otherwise		\$ _____		\$ _____		\$ _____
3. Proceeds from disposals:						
a. Applied for replacements	\$ _____		\$ _____		\$ _____	
b. Deposited to miscellaneous receipts	\$ _____		\$ _____		\$ _____	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$ _____		XXXXXXXXXXXXX \$ _____		XXXXXXXXXXXXX \$ _____	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$ _____		\$ _____		\$ _____	
2. Rented commercially	\$ _____		\$ _____		\$ _____	
3. Total (I1+I2)	XXXXXXXXXXXXX \$ _____		XXXXXXXXXXXXX \$ _____		XXXXXXXXXXXXX \$ _____	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau _____

Domestic

Trucks 12,500 -

Vehicle Type 16,999# Date September, 1967

Foreign

	Past year 19 67		Current year 19 68		Budget year 19 69	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 11		+ 12		+ 13	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 11		XXXXXXXXXXXXX + 12		XXXXXXXXXXXXX + 13	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+ 1		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+ 1		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 12	+ 12	+ 13	+ 13	+ 13	+ 13
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	12		13		13	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		12		13		13
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$		\$ 2,200		\$ 2,200
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau _____

Domestic

Trucks 17,000#

Vehicle Type and over Date September, 1967

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 6		+ 6		+ 6	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		- 1	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 6		XXXXXXXXXXXXX + 6		XXXXXXXXXXXXX + 5	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+ 1		+ 2		+ 1	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 1	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+ 1		+ 2		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 2		XXXXXXXXXXXXX	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(..... 1)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 6	+ 6	+ 6	+ 6	+ 6	+ 6
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	XXXXXXXXXXXXX + 6		XXXXXXXXXXXXX + 6		XXXXXXXXXXXXX + 6	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools						
2. Rented commercially						
3. Total (F1+F2)	XXXXXXXXXXXXX		XXXXXXXXXXXXX		XXXXXXXXXXXXX	
G. Total vehicles available full time (E+F3)		6		6		6
H. Obligations and related data:						
1. Obligations for vehicles ordered	\$		\$ 10,000		\$ 5,000	
2. Cost of vehicles acquired otherwise	\$		\$		\$	
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau National Zoological Park

Domestic

Vehicle Type Light sedans Date September, 1967

Foreign

	Past year 19 67		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1.....	+ 2		+ 3		+ 0	
2. Add vehicles on order but outstanding, July 1.....	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal.....	- 1		- 2		-	
4. Net Fleet, July 1 (A1+A2-A3).....	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 0	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered.....	+		+		+	
2. Acquired by forfeiture.....	+		+		+	
3. Acquired by transfer.....	+ 1		+		+	
4. Total acquisitions (B1+B2+B3).....	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add).....	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished.....	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30.....	+ 1		+ 1		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4).....	XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX -	
a. For replacement (non-add).....	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies.....	(.....)		(1)		(.....)	
(2) Donation to non-Federal recipients.....	(.....)		(.....)		(.....)	
(3) Sold.....	(1*)		(.....)		(.....)	
(4) Other (Explain).....	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards.....	(.....)		(.....)		(.....)	
2. Meeting mileage standard only.....	(.....)		(.....)		(.....)	
3. Meeting age standard only.....	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain).....	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a).....	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):						
1. Deduct new vehicles ordered but not received.....	+ 1	+ 1	+ 0	+ 0	+ 0	+ 0
2. Add newly scheduled disposals not accomplished (C3).....	+ 1		+		+	
3. Add carryover disposals not accomplished (A3-C1).....	+ 1		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3).....	3		0		0	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools.....	.....		.....		.....
2. Rented commercially.....	.....		.....		.....
3. Total (F1+F2).....	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3).....						
		1		0		0
H. Obligations and related data:						
1. Obligations for vehicles ordered.....		\$		\$		\$
2. Cost of vehicles acquired otherwise.....		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements.....		\$		\$		\$
b. Deposited to miscellaneous receipts.....		\$		\$		\$
c. Total (H3a+H3b).....	XXXXXXXXXXXXX	\$	XXXXXXXXXXXXX	\$	XXXXXXXXXXXXX	\$
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools.....		\$		\$		\$
2. Rented commercially.....		\$		\$		\$
3. Total (I1+I2).....	XXXXXXXXXXXXX	\$	XXXXXXXXXXXXX	\$	XXXXXXXXXXXXX	\$

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

* To be applied to purchase of Station Wagons

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau National Zoological Park

Domestic

Vehicle Type Station Wagons Date September, 1967

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 1		+ 1		+ 3	
2. Add vehicles on order but outstanding, July 1	+ 1		+ 2			
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 3		XXXXXXXXXXXXX + 3	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+ 1					
2. Acquired by forfeiture						
3. Acquired by transfer						
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX		XXXXXXXXXXXXX	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished						
3. Newly scheduled disposals, unaccomplished June 30						
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):						
1. Deduct new vehicles ordered but not received	- 2		-		-	
2. Add newly scheduled disposals not accomplished (C3)						
3. Add carryover disposals not accomplished (A3-C1)						
4. Actually on hand, June 30 (E-E1+E2+E3)	1		3		3	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools						
2. Rented commercially						
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)						
		3		3		3
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$ 2,200		\$		\$
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau Salaries and Expenses
 Trucks under
 Vehicle Type 12,500# 4x2's Date September, 1967

Domestic

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 10		+ 9		+ 11	
2. Add vehicles on order but outstanding, July 1	+		+ 2		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 10		XXXXXXXXXXXXX + 11		XXXXXXXXXXXXX + 11	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+ 2		+ 1		+ 2	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 2	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+ 1		+ 1		+ 1	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1		XXXXXXXXXXXXX - 1	
a. For replacement (non-add):	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain) Junk	(..... 1		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(..... 1		(..... 1	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(..... 1		(..... 1	
E. Net Fleet, June 30 (A4+B4-C4):	+ 11	+ 11	+ 11	+ 11	+ 12	+ 12
1. Deduct new vehicles ordered but not received	- 2		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	9		11		12	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		11		11		12
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$ 5,197		\$ 3,000		\$ 6,000
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau Salaries and Expenses
 Trucks under
 Vehicle Type 12,500# 4x4's Date September, 1967

Domestic

Foreign

	Past year 19 67		Current year 19 68		Budget year 19 69	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 2		+ 2		+ 2	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 2	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+ 2		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 2	+ 2	+ 2	+ 2	+ 2	+ 2
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	2		2		2	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		2		2		2
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$		\$ 5,200		\$
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Domestic

Foreign

Agency Smithsonian Institution Bureau Salaries and Expenses
 Trucks 12,500 -
 Vehicle Type 16,999 # Date September, 1967

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 2		+ 2		+ 2	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 2		XXXXXXXXXXXXX + 2	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add):	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 2	+ 2	+ 2	+ 2	+ 2	+ 2
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	2		2		2	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools						
2. Rented commercially						
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		2		2		2
H. Obligations and related data:						
1. Obligations for vehicles ordered	\$		\$		\$	
2. Cost of vehicles acquired otherwise	\$		\$		\$	
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau National Zoological Park
 Trucks under

Domestic

Vehicle Type 12,500# 4x4's Date September, 1967

Foreign

	Past year 19 67		Current year 19 68		Budget year 19 69	
A. Net Fleet, July 1:						
1. Actually on hand, July 1.....	+ 9		+ 11		+ 11	
2. Add vehicles on order but outstanding, July 1.....	+		+ 1		+	
3. Deduct vehicles included in A1 awaiting disposal.....	-		- 1		-	
4. Net Fleet, July 1 (A1+A2-A3).....	xxxxxxxxxxxxx + 9		xxxxxxxxxxxxx + 11		xxxxxxxxxxxxx + 11	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered.....	+ 1		+ 1		+ 1	
2. Acquired by forfeiture.....	+		+		+	
3. Acquired by transfer.....	+ 2		+		+	
4. Total acquisitions (B1+B2+B3).....	xxxxxxxxxxxxx + 3		xxxxxxxxxxxxx + 1		xxxxxxxxxxxxx + 1	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add).....	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished.....	+		+ 1		+	
3. Newly scheduled disposals, unaccomplished June 30.....	+ 1		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4).....	xxxxxxxxxxxxx - 1		xxxxxxxxxxxxx - 1		xxxxxxxxxxxxx -	
a. For replacement (non-add).....	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies.....	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients.....	(.....)		(.....)		(.....)	
(3) Sold.....	(.....)		(.....)		(.....)	
(4) Other (Explain).....	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards.....	(.....)		(.....)		(.....)	
2. Meeting mileage standard only.....	(.....)		(.....)		(.....)	
3. Meeting age standard only.....	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain).....	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a).....	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 11	+ 11	+ 11	+ 11	+ 12	+ 12
1. Deduct new vehicles ordered but not received.....	- 1		-		-	
2. Add newly scheduled disposals not accomplished (C3).....	+ 1		+		+	
3. Add carryover disposals not accomplished (A3-C1).....	+		+ 11		+ 12	
4. Actually on hand, June 30 (E-E1+E2+E3).....	11		11		12	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools.....						
2. Rented commercially.....						
3. Total (F1+F2).....	xxxxxxxxxxxxx +		xxxxxxxxxxxxx +		xxxxxxxxxxxxx +	
G. Total vehicles available full time (E+F3).....		11		11		12
H. Obligations and related data:						
1. Obligations for vehicles ordered.....		\$ 1,900		\$ 1,900		\$ 1,900
2. Cost of vehicles acquired otherwise.....		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements.....	\$		\$		\$	
b. Deposited to miscellaneous receipts.....	\$		\$		\$	
c. Total (H3a+H3b).....	xxxxxxxxxxxxx \$		xxxxxxxxxxxxx \$		xxxxxxxxxxxxx \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools.....	\$		\$		\$	
2. Rented commercially.....	\$		\$		\$	
3. Total (I1+I2).....	xxxxxxxxxxxxx \$		xxxxxxxxxxxxx \$		xxxxxxxxxxxxx \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution, Bureau National Zoological Park
Trucks 12, 500 -
Vehicle Type 16, 999 # Date September, 1967

Domestic

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 8		+ 9		+ 10	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 8		XXXXXXXXXXXXX + 9		XXXXXXXXXXXXX + 10	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+ 1		+ 1	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+ 1		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+ 1	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX - 1	
a. For replacement (non-add)	(.....)		(.....)		(1)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(1)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(1)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 9	+ 9	+ 10	+ 10	+ 10	+ 10
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	9		10		10	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		9		10		10
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$		\$ 2,200		\$ 2,200
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau River Basin Surveys
 Trucks under
 Vehicle Type 12, 500# 4x2's Date September, 1967

Domestic

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 11		+ 11		+ 11	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 11		XXXXXXXXXXXXX + 11		XXXXXXXXXXXXX + 11	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 11	+ 11	+ 11	+ 11	+ 11	+ 11
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	11		11		11	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		11		11		11
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$		\$		\$
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau River Basin Surveys

Domestic

Trucks under

Vehicle Type 12, 500# 4x4's Date September, 1967

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 3		+ 3		+ 3	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 3		XXXXXXXXXXXXX + 3		XXXXXXXXXXXXX + 3	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 3	+ 3	+ 3	+ 3	+ 3	+ 3
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	3		3		3	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools						
2. Rented commercially						
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		3		3		3
H. Obligations and related data:						
1. Obligations for vehicles ordered		\$		\$		\$
2. Cost of vehicles acquired otherwise		\$		\$		\$
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

REPORT OF MOTOR VEHICLE DATA

Consolidation

Agency Smithsonian Institution Bureau River Basin Surveys

Domestic

Trucks 12,500 -

Vehicle Type 16,999# Date September, 1967

Foreign

	Past year 1967		Current year 1968		Budget year 1969	
A. Net Fleet, July 1:						
1. Actually on hand, July 1	+ 1		+ 1		+ 1	
2. Add vehicles on order but outstanding, July 1	+		+		+	
3. Deduct vehicles included in A1 awaiting disposal	-		-		-	
4. Net Fleet, July 1 (A1+A2-A3)	XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1		XXXXXXXXXXXXX + 1	
B. Acquisitions:						
1. All new orders placed, including those not yet delivered	+		+		+	
2. Acquired by forfeiture	+		+		+	
3. Acquired by transfer	+		+		+	
4. Total acquisitions (B1+B2+B3)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
C. Disposals accomplished and scheduled:						
1. Carryover disposals accomplished (non-add)	(.....)		(.....)		(.....)	
2. Newly scheduled disposals accomplished	+		+		+	
3. Newly scheduled disposals, unaccomplished June 30	+		+		+	
4. Total newly scheduled disposals (C2+C3=4a+4b1 through 4b4)	XXXXXXXXXXXXX -		XXXXXXXXXXXXX -		XXXXXXXXXXXXX -	
a. For replacement (non-add)	(.....)		(.....)		(.....)	
b. Not for replacement (non-add):						
(1) Transfers to other agencies	(.....)		(.....)		(.....)	
(2) Donation to non-Federal recipients	(.....)		(.....)		(.....)	
(3) Sold	(.....)		(.....)		(.....)	
(4) Other (Explain)	(.....)		(.....)		(.....)	
D. Newly scheduled disposals being replaced (non-add):						
1. Meeting both age and mileage standards	(.....)		(.....)		(.....)	
2. Meeting mileage standard only	(.....)		(.....)		(.....)	
3. Meeting age standard only	(.....)		(.....)		(.....)	
4. Not meeting either standard (Explain)	(.....)		(.....)		(.....)	
5. Total (D1+D2+D3+D4=C4a)	(.....)		(.....)		(.....)	
E. Net Fleet, June 30 (A4+B4-C4):	+ 1	+ 1	+ 1	+ 1	+ 1	+ 1
1. Deduct new vehicles ordered but not received	-		-		-	
2. Add newly scheduled disposals not accomplished (C3)	+		+		+	
3. Add carryover disposals not accomplished (A3-C1)	+		+		+	
4. Actually on hand, June 30 (E-E1+E2+E3)	1		1		1	
F. Vehicles used on a term basis:						
1. Assigned from interagency motor pools	.....		.....		.....
2. Rented commercially	.....		.....		.....
3. Total (F1+F2)	XXXXXXXXXXXXX +		XXXXXXXXXXXXX +		XXXXXXXXXXXXX +	
G. Total vehicles available full time (E+F3)		1		1		1
H. Obligations and related data:						
1. Obligations for vehicles ordered	\$		\$		\$	
2. Cost of vehicles acquired otherwise	\$		\$		\$	
3. Proceeds from disposals:						
a. Applied for replacements	\$		\$		\$	
b. Deposited to miscellaneous receipts	\$		\$		\$	
c. Total (H3a+H3b)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	
I. Cost of vehicles used on a term basis:						
1. From interagency motor pools	\$		\$		\$	
2. Rented commercially	\$		\$		\$	
3. Total (I1+I2)	XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$		XXXXXXXXXXXXX \$	

Explanations: (Key to year, and line letter and number. Continue on plain paper, if required.)

SMITHSONIAN INSTITUTION

Research by the Smithsonian Institution on Contracts, Fiscal Year 1967

<u>Contracting Agency</u>	<u>Research Field</u>	<u>Actual Amount</u>
Atomic Energy Commission	Plant Physiology	\$90,000
Department of Defense	Astrophysics	\$50,000
	Zoology	250,000
	Ecology	82,000
	Miscellaneous	<u>90,000</u>
Total, Department of Defense		472,000
National Science Foundation	Science Information	
	Exchange	2,160,000
	Miscellaneous	<u>256,000</u>
Total, National Science Foundation		2,416,000
National Aeronautics and Space Administration	Celescope	2,500,000
	Miscellaneous	120,000
Total, National Aeronautics and Space Administration.		2,620,000
Department of Health, Education, and Welfare	Zoology	90,000
Department of the Interior	Miscellaneous	56,000
Total, Research Contracts, Fiscal Year 1967		<u>\$5,744,000</u>

SMITHSONIAN INSTITUTION

Grants to the Smithsonian Institution, Fiscal Year 1967

<u>Granting Agency</u>	<u>Title of Grant</u>	<u>Actual Amount</u>
Department of Defense	Ecology of Tropical Delta Forest	\$85,000
	Miscellaneous	<u>24,000</u>
Total, Department of Defense		\$109,000
National Aeronautics and Space Administration	Study of Meteorites ..	40,000
	Satellite Tracking Program	6,880,000
	Prairie Network	202,300
	Miscellaneous small grants	<u>72,000</u>
Total, National Aeronautics and Space Administration		7,194,300
National Science Foundation	Undergraduate research program ..	29,000
	Observation of comets	15,000
	Antarctic biology	42,000
	Neotropical phanerogams	31,000
	Joseph Henry Papers	60,000
	Miscellaneous small grants	<u>20,000</u>
Total, National Science Foundation		197,000
Department of Health, Education, and Welfare	Information Storage and Retrieval System	<u>292,927</u>
Total Grants, Fiscal Year 1967		<u>\$7,793,227</u>

SMITHSONIAN INSTITUTION

Grants to the Smithsonian Institution, Fiscal Year, 1968

<u>Granting Agency</u>	<u>Title of Grant</u>	<u>Estimated Amount</u>
National Aeronautics and Space Admin- istration	Study of Meteorites	\$68,000
	Satellite Tracking Pro- gram	5,000,000
	Miscellaneous small grants	<u>300,000</u>
Total, National Aeronautics and Space Administration..		\$5,368,000
Department of Health, Education, and Wel- fare	Miscellaneous Grants	250,000
National Science Foundation	Estimated Miscellaneous Grants	<u>50,000</u>
Total Grants, Fiscal Year 1968		<u>\$5,668,000</u>

SMITHSONIAN INSTITUTION

Research by the Smithsonian Institution on Contracts, Fiscal Year 1968

<u>Contracting Agency</u>	<u>Research Field</u>	<u>Estimated Amount</u>
Department of Health, Education, and Welfare	Various research projects	0
Atomic Energy Commission	Plant Physiology	90,000
Department of Defense	Various Research projects	650,000
National Science Foundation	Science Information Exchange	2,000,000
National Aeronautics and Space Administration	Astrophysics	<u>4,000,000</u>
Total Research Contracts, Fiscal Year 1968		<u>\$6,740,000</u>

SMITHSONIAN INSTITUTION
 ADVANCES AND REIMBURSEMENTS

Program and Financing (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-3900-0-4-704			
<u>Program by activities:</u>			
River basin archeological studies, Department of the Interior (program costs, funded).....	226	218	207
Change in selected resources <u>1/</u> ...	-9	-3	...
10 Total obligations.....	217	215	207
<u>Financing:</u>			
11 Receipts and reimbursements from: Administrative budget accounts.....	-219	-195	-195
21.98 Unobligated balance available, start of year.....	-30	-32	-12
24.98 Unobligated balance available, end of year.....	32	12	...
<u>New obligational authority</u>	...	...	...
<u>Relation of obligations to expenditures:</u>			
10 Total obligations.....	217	215	207
70 Receipts and other offsets (items 11-17).....	-219	-195	-195
71 Obligations affecting expenditures.....	-2	20	12
72.98 Obligated balance, start of year.....	34	24	32
74.98 Obligated balance, end of year.....	-24	-32	-30
90 Expenditures.....	7	12	14

1/ Selected resources as of June 30 are as follows: Unpaid undelivered orders, 1966, \$14 thousand; 1967, \$6 thousand; 1968, \$13 thousand; 1969, \$3 thousand.

SMITHSONIAN INSTITUTION
 ADVANCES AND REIMBURSEMENTS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-3900-0-4-704			
Personnel compensation:			
11.1 Permanent positions.....	166	167	165
11.3 Positions other than permanent.....	12	3	...
11.5 Other personnel compensation			
Total personnel compensation.....	178	170	165
12.0 Personnel benefits.....	13	12	12
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	3	3	2
22.0 Transportation of things.....	1	1	1
23.0 Rent, communications, and utilities.....	13	13	13
24.0 Printing and reproduction.....	6	6	6
25.1 Other services.....	5	6	2
25.2 Services of business agencies			
26.0 Supplies and materials.....	3	3	3
31.0 Equipment.....	4	4	3
32.0 Lands and structures			
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions			
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
Total costs, funded.....	226	218	207
Change in selected resources.....	-9	-3	...
99.0 Total obligations.....	217	215	207

SMITHSONIAN INSTITUTION
 ADVANCES AND REIMBURSEMENTS

DETAIL OF PERSONNEL COMPENSATION

Grades and ranges:	1967 ^{actual}		1968 ^{estimate}		1969 ^{estimate}	
	Num- ber	Total salary	Num- ber	Total salary	Num- ber	Total salary
GS-14. \$15,106 to \$19,813:						
Director	1	\$15,629	1	\$16,152	1	\$16,675
GS-12. \$10,927 to \$14,338	5	55,772	5	57,667	5	59,183
GS-11. \$9,221 to \$12,056	2	18,442	2	19,072	2	19,702
GS-9. \$7,696 to \$10,045	6	49,830	6	50,352	6	51,657
GS-7. \$6,451 to \$8,368.	2	13,967	2	14,180	2	14,393
GS-6. \$5,867 to \$7,649.	1	6,659	1	6,659	1	6,857
GS-5. \$5,331 to \$6,915.	2	11,894	2	12,070	2	12,246
GS-4. \$4,776 to \$6,216.	4	19,904	4	20,384	6	20,863
GS-2. \$3,925 to \$5,122.	2	7,850	2	8,116	2	8,392
GS-1. \$3,609 to \$4,707.	1	3,609	1	3,731	1	3,853
Total permanent	26	203,556	26	208,383	28	213,821
Pay above the stated annual rate.....		796		....		817
Lapses.....	-5	-38,498	-6	-41,383	-7	-49,638
Net savings due to lower pay scales for part of the year.....		23		....		....
Net permanent (average number, net salary) ...	21	165,877	20	167,000	19	165,000
Positions other than perma- nent: Intermittent em- ployment.....		12,123		3,000		....
Total personnel compensation		178,000		170,000		165,000

SMITHSONIAN INSTITUTION
 DEPOSIT FUNDS

Program and Financing (in thousands of dollars)

Identification code 32-50-6000-0-9-000	1967 actual	1968 estimate	1969 estimate
Relation of obligations to expenditures:			
72 Obligated balance, start of year ...	1,083	1,728	600
74 Obligated balance, end of year.....	-1,728	-600	-600
90 Expenditures	-645	1,128	...

SMITHSONIAN INSTITUTION
 MISCELLANEOUS TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code 32-50-9999-7-704	19 67 actual	19 68 estimate	19 69 estimate
Relation of obligations to expenditures:			
71 Total obligations (affecting expenditures)	76	37	33
90 Expenditures	76	37	33

SMITHSONIAN INSTITUTION
 ADVANCES FROM THE DISTRICT OF COLUMBIA

Program and Financing (in thousands of dollars)

Identification code	1967 actual	1968 estimate	1969 estimate
32-50-8046-0-7-704			
<u>Program by activities:</u>			
10 Operation of the National Zoological Park (costs -- obligations)...	2,040	2,270	2,866
<u>Financing:</u>			
60 New obligational authority (appropriation)	2,040	2,270	2,866
<u>Relation of obligations to expenditures:</u>			
71 Total obligations (affecting expenditures)	2,040	2,270	2,866
72 Obligated balance, start of year .	...	146	182
74 Obligated balance, end of year ..	-146	-182	-220
90 Expenditures	1,894	2,234	2,828

The National Zoological Park has been assigned the mission and objectives of contributing to the "advancement of science and the instruction and recreation of the people." Accomplishment of the mission and objectives requires continuous efforts to exhibit a broad zoological collection of animals from all parts of the world; to maintain conditions for these animals as near as possible to their natural ecology; to promote and support scientific research programs in wild animal behavior; and to provide for the safety and protection of all concerned.

SMITHSONIAN INSTITUTION
 ADVANCES FROM THE DISTRICT OF COLUMBIA

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 32-50-8046-0-7-704	19 67 actual	19 68 estimate	19 69 estimate
Personnel compensation:			
11.1 Permanent positions.....	1, 48 2	1, 626	1, 954
11.3 Positions other than permanent.....	53	52	77
11.5 Other personnel compensation.....	53	50	50
Total personnel compensation.....	1, 588	1, 728	2, 081
12.0 Personnel benefits.....	116	122	150
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	3	4	7
22.0 Transportation of things.....	3	2	2
23.0 Rent, communications, and utilities.....	37	53	63
24.0 Printing and reproduction.....	1	-	1
25.1 Other services.....	13	13	27
25.2 Services of other agencies.....			
26.0 Supplies and materials.....	225	270	393
31.0 Equipment.....	54	78	142
32.0 Lands and structures.....			
33.0 Investments and loans.....			
41.0 Grants, subsidies, and contributions.....			
42.0 Insurance claims and indemnities.....			
43.0 Interest and dividends.....			
44.0 Refunds.....			
99.0 Total obligations.....	2, 040	2, 270	2, 866

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