

**MISSION SUPPORT
CONSTRUCTION OF FACILITIES
FISCAL YEAR 1998 BUDGET ESTIMATES**

PROGRAM GOALS

The goal of the Construction of Facilities program is to provide the facilities that are critical to achieving NASA's space and aeronautics program.

STRATEGY FOR ACHIEVING GOALS

Funding for construction is budgeted in the appropriations which require specific facilities to conduct their programs. Funding for discrete projects required to conduct specific Human Space Flight or Science, Aeronautics, and Technology programs or projects are included in these two appropriations. The Construction of Facilities budget line item in the Mission Support appropriation provides for discrete projects required for components of the basic infrastructure and institutional facilities. The Mission Support appropriation also includes minor revitalization projects (repair and rehabilitation and modernization of existing facilities), minor construction projects, environmental compliance and restoration activities, the design of facilities projects, and advanced planning related to future facilities needs. The narratives for all construction projects are included to identify the total facilities required in FY 1998. The Space Shuttle budget (in the Human Space Flight appropriation), and the Life and Microgravity Sciences and Applications budget and the Aeronautics and Advanced Space Transportation budget (within the Science, Aeronautics and Technology appropriation) include the specific facility projects as program requirements and references the narratives provided in Mission Support for detailed descriptions and justifications.

The Human Space Flight FY 1998 budget request provides discrete projects for restoration of Space Station facilities, including the Shuttle launch pad A's surface and slope, repair of Pad A Payload Changeout Room wall and ceiling, and rehabilitation of the 480 volt electrical distribution system for the External Tank Manufacturing Building at the Michoud Assembly Facility. The Science, Aeronautics, and Technology FY 1998 budget request provides discrete projects for rehabilitation and modification of the B2 Test Stand at Stennis Space Center and modifications for the installation of the Bio-Plex at Johnson Space Center.

In Mission Support, funding is requested in FY 1998 for discrete projects to repair and modernize utility and building systems which have reached or exceeded their normal design life. These systems include cooling, mechanical, structural, and electrical distribution at Ames Research Center, Dryden Flight Research Facility, Goddard Space Flight Center, Kennedy Space Center, Lewis Research Center, and Marshall Space Flight Center. Also included is a project at the Jet Propulsion Laboratory to construct a facility in which to consolidate

emergency services currently housed in various substandard facilities and trailers.

These facilities are critical to the development and operation of the space transportation system. In addition, they are necessary to support payloads and launch facilities, as well as our aeronautical and aerospace testing capabilities, that also support military and private industry users.

The FY 1998 construction program is required to help preserve and enhance the capabilities and usefulness of existing facilities and ensure the safe, economical, and efficient use of the NASA physical plant. The minor revitalization program included in this request continues the necessary rehabilitation and modification program and a responsive repair program. The minor construction program provides a means to accomplish smaller facility projects which accommodate changes in technical and institutional requirements. The environmental compliance and restoration program is critical to ensuring that statutory environmental requirements are met and that necessary remedial actions are promptly taken.

Funds requested for facility planning and design cover advance planning and design requirements for potential future projects, master planning, facilities studies, engineering report and studies, and the preparation of facility project design drawings and bid specifications. Since pressures continue to mount on the Construction of Facilities resources as the facility base ages, as a preventive measure, funding is also included for two initiatives (conversion to Reliability-Centered Maintenance and Performance-Based Maintenance Contracting) directed at increasing the rate of return of severely constrained Agency resources while keeping the facility infrastructure safe, reliable, and available. These conversions began in FY 1996 and planned to conclude in FY 1998.

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
CONSTRUCTION OF FACILITIES
FISCAL YEAR 1998 ESTIMATES**

**SUMMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT
HUMAN SPACE FLIGHT**

INSTALLATION AND PROJECT (Thousands of Dollars)	FY 1996	FY 1997	FY 1998
SPACE STATION:	18,100	---	---
Construction of Addition to Microgravity Development Laboratory (MSFC)	3,300	---	---
Construction of Neutral Buoyancy Laboratory (JSC)	14,800	---	---
OTHER HUMAN SPACE FLIGHT:	17,400	8,300	6,800
Repair of Payload Changeout Room Wall & Ceiling, Pad A (KSC)	---	---	2,200
Restoration of Pad Surface & Slope, Pad A (KSC)	---	---	1,800
Rehabilitation of 480V Electrical Distribution System, External Tank Manufacturing Building (MAF)	---	2,500	2,800
Replacement of LC-39 Pad B Chillers (KSC)	---	1,800	---
Restoration of Pad B Fixed Support Structure Elevator System (KSC)	---	1,500	---
Restoration of High Pressure Industrial Water Plant (SSC)	---	2,500	---
Modernize Firex System, Pads A and B (KSC)	5,000	---	---
Replace Chemical Analysis Facility (KSC)	7,500	---	---
Replace Space Shuttle Main Engine Processing Facility (KSC)	4,900	---	---
Total - Human Space Flight	35,500	8,300	6,800

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
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**SUMMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT
SCIENCE, AERONAUTICS, AND TECHNOLOGY**

INSTALLATION AND PROJECT (Thousands of Dollars)	FY 1996	FY 1997	FY 1998
MISSION TO PLANET EARTH			
Construction of Earth System Science Building (GSFC)	17,000	---	---
LIFE & MICROGRAVITY SCIENCE AND APPLICATIONS			
Modifications for the Installation of the Bio-Plex (JSC)	---	---	2,000
AERONAUTICS AND SPACE TRANSPORTATION TECHNOLOGY			
Rehabilitation and Modification of B2 Test Stand (SSC)	---	2,300	3,700
Modifications to Complex "E" to Consolidate Propulsion Testing (SSC)	10,500	---	---
Total - Science, Aeronautics and Technology	27,500	2,300	5,700

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
CONSTRUCTION OF FACILITIES
FISCAL YEAR 1998 ESTIMATES**

**SUMMARY OF BUDGET PLAN BY APPROPRIATION AND PROJECT
MISSION SUPPORT-- CONSTRUCTION OF FACILITIES (COF)**

INSTALLATION AND PROJECT (Thousands of Dollars)	Fiscal Year 1996	Fiscal Year 1997	Fiscal Year 1998
Modernization of Process Cooling System, Numerical Aerodynamic Simulation Facility (ARC)	---	---	2,700
Rehabilitation and Modification of Hangar/Shop (DFRC)	---	---	2,800
Restoration of Chilled Water Distribution System (GSFC)	3,000	4,000	2,400
Restoration of Space/Terrestrial Application Facility (GSFC)	---	---	4,600
Construction of Emergency Services Facility (JPL)	---	---	4,800
Upgrade of Utility Annex Chilled Water Plant (KSC)	---	---	5,900

Rehabilitation of High Voltage System (LeRC)	---	---	9,400
Modification of Chilled Water System (MSFC)	---	6,700	7,000
Modernization of Electrical Distribution System (ARC)	---	2,400	---
Modification of Aircraft Ramp and Tow Way (DFRC)	---	3,000	---
Restoration of Hangar Building 4801 (DFRC)	---	4,500	---
Modernization of Secondary Electrical Systems (GSFC)	---	1,500	---
Modification of Refrigeration Systems, Various Buildings (JPL)	---	2,800	---
Rehabilitation of Electrical Distribution System, White Sands Test Facility (JSC)	1,100	2,600	---
Rehabilitation of Utility Tunnel Structure and Systems (JSC)	---	4,400	---
Replacement of DX Units with Central Chilled Water System Logistics Facility, (KSC)	---	1,800	---
Rehabilitation of Central Air Equipment Building (LeRC)	9,000	6,500	---
Rehabilitation of Condenser Water System, 202/207 Complex (MAF)	---	2,100	---
Restoration of Flight Systems Research Laboratory (ARC)	6,300	---	---
Replace Chillers, Various Buildings (JPL)	4,800	---	---
Replace Main Substation Switchgear and Circuit Breakers (JSC)	4,200	---	---
Replace 15kV Load Break Switches (KSC)	1,800	---	---
Restoration of High Pressure Air Compressor System (MSFC)	4,700	---	---
Restoration of Information & Electronic Systems Lab (MSFC)	6,800	---	---
Restoration of Canal Lock (SSC)	1,400	---	---
Restoration of Primary Electrical Distribution System (WFF)	2,500	---	---

Minor Revitalization	72,540	57,900	65,700
Minor Construction	3,800	3,400	1,100
Facility, Planning and Design	10,000	18,700	19,000
Environmental Compliance and Restoration	37,000	33,000	34,000
*Reduction	24,000	---	---
MISSION SUPPORT	144,940	155,300	159,400
TOTAL CONSTRUCTION OF FACILITIES (ALL APPROPRIATIONS)	207,940	165,900	171,900

*In accordance with Appropriation Conference Report 104-384 dated December 7, 1995 accompanying H.R. 2099, \$24 million of excess FY 1994 funding was used to fund FY 1996 construction projects.