THEME: Space and Flight Support

Space and Flight Support is comprised of separate Agency-level "enabling capabilities" program services including environmental support, space communications, Space Shuttle payloads processing, expendable launch vehicles, and rocket propulsion systems testing.

SPACE AND FLIGHT SUPPORT

MAJOR EVENTS IN FY 2004

- Commence Plum Brook reactor building demolition and disposal.
- Award of the Space Mission Communication and Data Service Procurement, the follow-on to the Consolidated Space Operations Contract (CSOC).

THEME: Space and Flight Support

OVERVIEW

Space and Flight Support, managed by the Office of Space Flight is comprised of several distinct Agency-level services in support of NASA research. These services includes space communications, Space Shuttle payloads processing, expendable launch vehicles, rocket propulsion systems testing, and environmental (Plum Brook nuclear facility dismantling and Environmental Compliance and Restoration). The services are critical for conducting space exploration, aeronautical research, material sciences research, biological and physical research. These services are provided to a wide range of customers including NASA scientists and engineers, other U.S. federal agencies, universities, foreign governments and industry interests. Space and Flight Support also includes the Advanced Systems program, which conducts advanced research and technology development to enable future NASA capabilities.

Missions	Goals supported by this theme	Objectives supporting those goals Reference 2003 Strategic Plan
Understand & Protect Earth	Goal 1: Understand the Earth system and apply Earth system science to improve prediction of climate, weather and natural hazards.	1.1 Understand how the Earth is changing, better predict change, and understand the consequences for life on Earth. (Supporting Role)
	Goal 3: Create a more secure world and improve the quality of life by investing in technologies and collaborating with other agencies, industry and academia.	3.1 Enhance the Nation's security by developing and demonstrating critical access-to-space technologies that benefit NASA, DOD, and other government agencies. (Supporting Role)
Explore	Goal 5: Explore the solar system and the universe beyond, understand the origin and evolution of life and search for evidence of life elsewhere.	5.6 Develop an understanding of Mars in support of possible future human exploration. (Supporting Role)
Inspire	Goal 6: Inspire students to pursue careers in science, math and engineering.	6.1, 6.2, 6.3, 6.4 (Supporting Role) - See Education Programs Theme.
	Goal 7: Engage the public in shaping and sharing the experience of exploration and discovery.	7.2 - Improve science literacy by engaging the public in NASA missions and discoveries, and their benefits, through such avenues as public programs, community outreach, mass media, and the internet.
Enabling Capabilities	Goal 8: Ensure the provision of space access, and improve it by increasing safety, reliability, and affordability.	8.5 - Provide services for space communications,rocket propulsion testing, and launch in support of NASA, other government agencies and industry.
		8.6 - Create concepts, technologies and capabilities for transportation beyond LEO, and define plans to enable affordable future infrastructures.
	Goal 9: Extend the duration and boundaries of human space flight to create new opportunities for exploration and discovery.	9.5 - Create innovative approaches and concepts to inform future decisions concerning systems, infrastructures and missions for human and robotic exploration of space.
	Goal 10: Enable revolutionary capabilities through new technology.	10.4 - Create novel aerospace concepts in support of future human and robotic exploration and development of space.

RELEVANCE

Space and Flight Support includes the enabling capabilities required to conduct space exploration, expand scientific knowledge of our universe, enable the development of space and to conduct Microgravity research. Each of these capabilities play a critical support role in the success of NASA missions and goals. Without these capabilities NASA could not perform many of its missions and the American public would not receive many benefits of the nation's space program. In addition to these capabilities, the Space and Flight Support Theme includes funding for the decommissioning of the Plum Brook nuclear reactor and environmental remediation activities for the agency. These two initiatives address environmental legacy liabilities of decades of space explorations and demonstrate NASA's commitment to providing a safe and clean natural environment for future generations of Americans.

THEME: Space & Flight Support

RELEVANCE (continued)

Education and Public Benefits
Benefits of Space and Flight Support include the relay of scientific data from space to Earth, the safe launching of Space Shuttles and expendable launch vehicles necessary for research, assurance that rocket systems have been adequately tested, and provision of a blue print for future capabilities to enable pursuit of future exploration and discovery. These activities benefit both the general public and the education community. A space program properly supported by this Theme will be successful and will generate a broad array of research data that can be used to generate new scientific knowledge through the study of the physical sciences, biological sciences, Earth sciences, planetary science and beyond.

IMPLEMENTATION

This theme is composed of multiple programs that provide capabilities across a customer base that includes internal NASA customers, other federal agencies, foreign governments and commercial customers. These programs, while serving separate and distinct roles, serve a common role of continuous customer service. They work together to achieve the aforementioned goals and objectives. Those elements are summarized below.

Space and Flight Support is a multiple-program theme with program responsibility in the Office of Space Flight, at NASA HQ. The Agency Program Institutional Management Council (PIMC) has governing responsibility. Enterprise official is William Readdy, Associate Administrator for Space Flight at HQ. The Headquarters Program Directors are: Space Communications - Robert Spearing, Payload Carriers and Expendable Launch Vehicles - Karen Poniatowski, Miscellaneous (Crew Health and Safety) - Dr. Jeffrey Davis, Advanced Systems - John Mankins, and Plum Brook Decommissioning and the Environmental Compliance and Restoration programs - Olga Dominguez.

Strategy	Schedule by Fiscal Year 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10	Purpose
Space Communications		Provides space comm. services to STS, ISS, Low Earth Orbiting (LEO) satellites, and launch vehicles, and telecomm. services among facilities such as NASA flight support networks, mission control centers and science facilities, and admin. comm. among NASA Centers.
Payload Carriers		Provides expertise and facilities necessary to perform payload buildup; test and checkout; integration and servicing of; transportation to the launch vehicle; and integration and installation into the launch vehicle.
Expendable Launch Vehicles		Provides oversight of launch services across all launch vehicle classes for NASA unique one of a kind science, earth observing and technology payloads. Provides launch site maintenance and sustaining operations at Vandenberg AFB and Cape Canaveral Air Station.
Rocket Propulsion Testing		Provides development of space transportation propulsion systems by sustaining “world-class” core capabilities required by NASA rocket engine development and testing programs for space transportation.
Miscellaneous		Provides astronaut crew health monitoring services, delivery of on-orbit medical services, longitudinal studies and development of life support technologies.

THEME: Space & Flight Support

IMPLEMENTATION (continued)

Strategy (continued)	Schedule by Fiscal Year	Purpose
	96 97 98 99 00 01 02 03 04 05 06 07 08 09 10	
Advanced Systems		Supports the creation and enabling of a long-term Agency capabilities for human and robotic exploration and development of space.
Plum Brook Reactor Facility Decommissioning		Supports the decontamination, demolition and disposal of NASA's Plum Brook Nuclear Reactor Facility.
Environmental Compliance and Restoration		Supports activities necessary for compliance with environmental statutory and regulatory requirements and standards, orders, regulatory and cooperative agreements, and support of environmental program initiatives.

Tailoring
No exceptions to NPG 7120.5B have been taken.

STATUS

Over the past year, the Space and Flight Support theme continued to provide critical support in all areas under its domain. Each program provided customer support as measured by their individual annual performance goals. In the area of environmental interests, NASA continues to demonstrate its dedication to environmental stewardship and regulatory assurance as demonstrated by closing 90+ percent of compliance findings, and reducing unfunded environmental liabilities. Space Communications successfully provided support for all Shuttle flights and deep space expedition probes. Payloads processing met all customer requirements schedules and deadlines in preparing and integrating payloads into the Shuttle cargo bays and delivering to low Earth orbit. The four Space Shuttle launches included five Hitchhiker experiments, six Get-Away Special Payloads and six Secondary payloads. Expendable Launch Vehicles met all customer requirements and deadlines that resulted in the successful launch of six vehicles. The Rocket Propulsion Test program provided 24 test cells and associated facilities to meet customer demands.

Go to Program homepages for more detailed status information.

Plum Brook: http://www.lerc.nasa.gov/WWW/pbrf/
Environmental Compliance & Restoration:
http://www.hq.nasa.gov/office/codej/codeje/je_site/about_us/about_us.html

Advanced Systems: http://hedsadvsystems.nasa.gov/SpaceExploration.html
Expendable Launch Systems http://www.ksc.nasa.gov/elvnew/elv.htm
Rocket Propulsion Test Program https://rockettest.ssc.nasa.gov/
Payloads Carriers/Small Paylaods Office http://sspp.gsfc.nasa.gov

THEME: Space & Flight Support

PERFORMANCE MEASURES

Annual Performance Goals	
OUTCOME:	1.1.4 - Enhance Earth Science research through definition of future opportunities for utilizationof unique human capabilities in space.
4SFS1	Identify 2-3 innovative system and infrastructure concepts (and associated technologies) driven by the requirements of ambitious future Earth system science missions.
4SFS2	Develop and review technology maturation road maps and investment strategies necessary to realize these transformational capabilities for Earth system science.
OUTCOME:	3.1.2 - Advance goals of a more secure world and a higher quality of life by providing and defining more capable and affordable future in space operations infrastructure.
4SFS3	Identify 2-3 innovative systems and infrastructure concepts (and associated technologies) that can support prospective requirements of ambitious future space systems that contribute materially to security and the quality of life.
4SFS4	Develop and review technology maturation road maps and investment strategies necessary to realize these transformational capabilities.
OUTCOME:	5.6.2 - Enable safer, more affordable and more effective future human and robotic exploration missions by defining science-driven, innovative approaches and concepts to inform future decisions concerning systems infrastructures.
4SFS5	Identify 4-6 innovative system and infrastructure concepts (and associated technologies) that can support the requirements of ambitious future space science missions.
4SFS6	Develop and independently review technology maturation road maps and investment strategies necessary to realize these transformational capabilities for Space Science.
OUTCOME:	6.1.1 - Kindergarten through graduate students will be more proficient in science, technology, engineering, and mathematics (STEM).
4SFS7	Ensure the development and distribution of OSF content for curricular use in NASA Explorer Schools and in the Educator Mission Specialist Program.
OUTCOME:	6.2.1 - More students from diverse communities motivated to pursue careers in STEM
4SFS8	Increase by 10%, students participating in OSF research and development opportunities that enhances their academic experience, strengthens their professional skills, and supports their successful transition into the scientific and technical workforce.
OUTCOME:	6.3.1 - Improve quality of STEM instruction.
4SFS9	Reach and expose, through both formal and informal educations venues, 800 in-service and pre-service teachers, university teacher education faculty and students to mathematics and science careers and to OSF's unique educational resources.
4SFS10	During academic year 2003-2004, increase by 2 the number of pre-college programs for students participation in OSF center sponsored education enrichment activities that promotes their interest in and knowledge of mathematics, science, engineering and technology career fields.
OUTCOME:	6.4.1 - More students prepared to enter the STEM workforce
4SFS11	During academic year 2003-2004, increase by 4% the number of undergraduate and graduate students and faculty researchers exposed and gaining hand-on experience in OSF's state-of-the art research instrumentation and methodologies.
4SFS12	Host 2 forums to strengthen OSF partnership with the minority university community and to more fully engage faculty and students from this community in OSF's mission.
OUTCOME:	7.2.3 - Use OSF unique facilities, education resources, formal and informal venues(conferences, workshops, science centers, museums) and print, web and TV media, to share with the public our human space activities.
4SFS13	Increase by 10% OSF venues (educational, commercial, and political) that provide "hands-on" opportunities for the public to experience and become more knowledgeable of OSF benefits and contributions, particularly ISS.
4SFS14	Increase the number of visits to the Space Flight websites.
OUTCOME:	8.5.1 - Provide reliable launch services on Expendable Launch Vehicles to meet agency requirements.
4SFS15	Maintain NASA success rate at or above a running average of 95% for missions noted on the Expendable Launch Vehicle (ELV) manifest.
OUTCOME:	8.5.2 - Provide reliable communications and mission control systems for every flight mission.
4SFS16	Achieve at least 95% of planned data delivery for the International Space Station, each Space Shuttle mission, and low-Earth orbiting missions in FY04.

THEME: Space & Flight Support

PERFORMANCE MEASURES (continued)

Annual Performance Goals (continued)	
OUTCOME:	8.5.3 - Minimize technical, cost, and schedule risk to NASA, DoD and Commercial test customers by ensuring safe and efficient operations of NASA test facilities.
4SFS17	Achieve zero mishaps that constitute a major breach of safety.
4SFS18	Achieve positive feedback from a minimum of 95% of all test customers.
OUTCOME:	8.6.1 - Advance future human and robotic exploration and development of space objectives.
4SFS19	Define and provide Level 1 OSF requirements related to future human and robotic exploration and development of space to NASA programs pursuing improvements in access to space.
4SFS20	Identify key concepts (near term to far term) and technology road maps for space transportation capabilities, focusing on future human & robotic space exploration and development.
OUTCOME:	9.5.1 - Enable safer, more affordable and more effective future human activities beyond LEO.
4SFS21	Identify 4-7 innovative system and infrastructure concepts (and associated technologies) in support of ambitious future human activities beyond LEO.
4SFS22	Identify 5-9 alternative human exploration mission options based on these innovative concepts.
4SFS23	Develop and review technology maturation road maps and investment strategies necessary to realize these transformational capabilities.
OUTCOME:	10.4 - Accelerate the development of new revolutionary technologies by enabling better investment decisions.
4SFS24	Define and provide Level 1 OSF requirements related to future human and robotic exploration and development of space to NASA and other Agency programs pursuing improvements in future revolutionary space capabilities.
4SFS25	Identify 8-10 concepts for transformational space capabilities, focusing on future human & robotic space exploration and development, in areas including space assembly, maintenance and servicing, space utilities and power, and self-sufficient space systems.
4SFS26	Develop technology road maps and formulation of investment options to enable these capabilities.
UNIFORM MEASURE:	Conduct a well managed program in accordance with Agency implementing strategies.
4SFS27	The Space & Flight Support Theme commits to execute its programs within +10% of the total cost shown on the following table.
4SFS28	The Space & Flight Support Theme commits to execute programs within +10% of the of its baseline schedules.

INDEPENDENT REVIEWS

Reviews are conducted at the Project level. Please refer to the Development, page 2, Operations, page 2 and Technology & Advanced Systems, page 2.

BUDGET

Budget Authority ($millions)	FY02	FY03	Chng	FY04	Comments
Space & Flight Support	**600.9**	**238.7**	**+195.6**	**434.3**	
Development:	0.0	0.0	+84.7	84.7	Not subject to Full Cost.
Plum Brook	[16]	[64]	-20.3	43.7	[ ] Budgeted in institutional support for FY 2002 and FY 2003. Non-add.
Env Compli & Restor.	[41]	[41]	-	41.0	
Operations	600.9	238.7	+104.9	343.6	
Space Communications	481.8	117.5	+7.3	124.8	
Payloads	57.0	51.7	+24.5	76.2	
ELV	34.3	35.8	+30.0	65.8	
Rocket Test	27.8	27.9	+34.4	62.3	
Miscellaneous	0.0	5.8	+8.7	14.5	
Technology and Advanced Concepts (Full Cost)			+6.0	6.0	New for FY 2004

Indicated budget numbers in Full Cost.

Indicates changes since the FY 2003 Presidents Budget Submit.

Note: For all formats, the FY 02 column reflects the FY 2002 Congressional Operating Plan dated 9/30/02. The FY 03 column reflects the FY 2003 Presidents Budget Submit (PBS) as Amended. The Change column includes both programmatic and full cost adjustments. FY2004 is in full cost.

THEME: Space & Flight Support

DEVELOPMENT: Plum Brook Reactor Facility Decommissioning (PBRF)

PURPOSE

Objectives	Reference 2003 Strategic Plan	Performance Measures
# IS4.2	Ensure operations and mission environmental compliance and stewardship over resources entrusted to NASA	4SFS29-30

1) Decontaminate NASA's Plum Brook Reactor Facility (PBRF) to levels to allow for unrestricted release required under 10 Code of Federal Regulations (CFR) 20 Subpart E "Radiological Criteria for License Termination".
2) Demolish and dispose of contaminated and uncontaminated buildings and structures.
3) Terminate the Nuclear Regulatory Commission (NRC) licenses for PBRF as required by the NRC, under 10 CFR 20.1402

OVERVIEW

The PBRF is an area of about 27 acres located within NASA's Plum Brook Station, a federal reservation of 6,400 acres, near Sandusky, OH. The PBRF includes a 60-megawatt (thermal) materials testing and research reactor (NRC license number TR-3), a 100-kilowatt mock-up reactor (NRC license number R-93), and other facilities that support the reactors. The PBRF was built for nuclear irradiation testing of nuclear fueled and unfueled experiments for space applications. PBRF was operating from 1961 to 1973. The NRC has required, through its license process and regulations, that NASA decommission PBRF by 2007. Moreover, the decommissioning schedule is driven by the one commercially available disposal facility (Barnwell, SC) for Class B and C radioactive wastes. Barnwell is accepting less waste each year and will stop accepting wastes in 2007.

Go to Plum Brook Reactor Decommissioning Project: http://www.grc.nasa.gov/WWW.PBRF/

PROGRAM MANAGEMENT

PBRF is a single-project program with program responsibility delegated to the Glenn Research Center. The Glenn Research Center Program Management Council (PMC) has governing responsibility for the PBRF. This is not an aerospace program and as such is not subject to the requirements of NPG 7120. The responsible office at NASA Headquarters is Code JE, Ms. Olga Dominguez.

TECHNICAL COMMITMENT

Decontaminate the site to meet NRC's unrestricted release levels for License Termination per 10 CFR 20.1402

Technical Specifications	Current Baseline	FY04 President's Budget	Change from Baseline
Continue reactor building demolition	Oct 03 thru Sept 04	Oct 03 thru Sept 04	-
Continue reactor quadrants demolition	Oct 03 thru Sept 05	Oct 03 thru Sept 05	-
Complete reactor vessel removal/cleanup	Nov 03	Nov 03	-
Commence environmental cleanup	Feb 04	Feb 04	-
Complete reactor fan house/hot lab demo	Aug 04	Aug 04	-
	No change in the technical approach. Rebaselining necessary to move appropriate surveying closer to the front end of the project (scheduled to occur in FY03).		

Schedule	Current Baseline	FY04 President's Budget	Change from Baseline
NRC notifies NASA of 2007 deadline	Nov-97	Nov-97	-
Decommissioning Plan submitted to NRC	Dec-99	Dec-99	-
NRC approves decommissioning plan	Nov-01	Mar-02	+ 4 months
Begin removing reactor internals	Oct-02	Feb-03	+ 4 months
Begine Demolition/Disposal efforts	Jan-04	Aug-04	+ 7 months
Commence reactor building demo/disp	Aug-04	Jul-05	+ 11 months
Site-wide demo/disposal completed	Apr-05	Mar-06	+ 11 months
NRC Validation - termination of licenses	Jul-06	Jun-07	+ 11 months

THEME: Space & Flight Support

DEVELOPMENT: Plum Brook Reactor Facility Decommissioning (PBRF)

ACQUISITION STRATEGY & PERFORMING ORGANIZATIONS

NASA signed a Space Act Agreement with the U.S. Army Corps (USACE) of Engineers. USACE is using a cost reimbursable type contract primarily because of the flexibility and continuous "cradle to grave" involvement. Moreover, USACE claims that its cost reimbursable contract was selected because of: 1) ability to provide incentives to contractors, 2) small business goals, 3) use of local contractors, 4) competitively awarded.

Changes since FY03 Pres. Budget: None.

Current Acquisitions	Actual *	Selection Method	Actual *	Performer	Actual *
Cooperative Agreements	0%	Full & Open Competition	0%	Industry	0%
Cost Reimbursable	100%	Sole Source	100%	Government	100%
Fixed Price	0%		100%	NASA Intramural	0%
Grants	0%			University	0%
Other	0%	Sci Peer Review	%	Non Profit	0%
* as % of FY02 direct procurement	100%	* as % of FY02 direct procurement		* as % of FY02 direct procurement	100%

Future Acquisitions - Major	Selection	Goals
None	n/a	n/a

AGREEMENTS

INTERNAL AGREEMENTS: None EXTERNAL AGREEMENTS: 1) Nuclear Regulatory Agency license TR-3 for 60 megawatt research test reactor – possess but not operate 2) Nuclear Regulatory Agency license R-93 for 100 kilowatt swimming pool mock-up reactor – possess but not operate, 3) Space Act Agreement signed on September 13, 1999, and SAA Modification #1 signed on August 3, 2000, provide the scope that allowed USACE to be a partner for PBRF decommissioning. ("Reimbursable Interagency Agreement between National Aeronautics and Space Administration and the Department of the Army for Activities Leading to the Decommissioning of the Plum Brook Station Nuclear Reactor Facility"), 4) USACE contract with Montgomery Watson 5) Montgomery Watson's contract and agreements with subcontractors (Duke Engineering & Services, and MOTA, Inc.) 6) NASA's agreements and contracts with support contractors: U.S. Department of Energy's Argonne National Laboratory, Plum Brook Operations and Support Group, Focus Group, and others. 7) NRC Letter of Indemnification dated July 8, 2000, indemnifying NASA, USACE, and contractors and subcontractors up to $500 million for radiological incidents during decommissioning. **Changes since FY03 Pres. Budget: None.**

INDEPENDENT REVIEWS

Types of Review	Performer	Last Review	Next Review	Purpose
NASA Non-Advocate Review	IPAO	30-Oct-01	N/A	No further non-advocate reviews planned

BUDGET/LIFE CYCLE COST

Total budget authority represents the Life Cycle Cost (LCC). These figures exclude preliminary studies completed prior to project commencement.

Budget Authority ($ in millions)	Prior	FY02	FY03	FY04	FY05	FY06	FY07	FY08	*BTC	Total	Comments
FY 2004 President's Budget (LCC)	13.0	16.0	64.0	43.7	30.5	9.2	0.6	0.0	-12.0	165.0	
Development	13.0	16.0	64.0	43.7	30.5	9.2	0.6		-12.0	165.0	
Changes since FY 03 Pres. Budget	-	-	-	-12.3	+14.5	+9.2	+0.6	-	-12.0	-	***Reason for Change:***
Development			-	-12.3	+14.5	+9.2	+0.6		-12.0	-	*Negative value in BTC reflects rephasing of project, no increase in cost.
FY 2003 President's Budget (LCC)	13.0	16.0	64.0	56.0	16.0	0.0	0.0	0.0		165.0	NOTE: Per issued guidance, environmental projects are not subject to full-cost requirements.
Development	13.0	16.0	64.0	56.0	16.0					165.0	
Initial Baseline (LCC)	13.0	16.0	64.0	56.0	16.0	0.0	0.0	0.0		165.0	
Development (Feb '97)	13.0	16.0	64.0	56.0	16.0					165.0	

Indicates changes since the FY 2003 Presidents Budget Submit.

FY 2002, FY 2003, Prior and BTC are not in full cost.

THEME: Space & Flight Support

DEVELOPMENT: Environmental Compliance and Restoration (ECR)

PURPOSE

Objectives		Reference 2003 Strategic Plan	Performance Measures
# IS4.2	Ensure operations and mission environmental compliance and stewardship over resources entrusted to NASA		4SFS29-30

Compliance with environmental requirements including environmental management system initiatives as outlined in Executive Order 13148. Activities necessary for NASA to comply with environmental statutory and regulatory requirements, standards, orders, cooperative agreements and environmental management system initiatives. Program is focused in areas of compliance, remediation, conservation, pollution prevention and closures and includes projects, studies, assessments, investigations, plans, designs, engineering, support, sampling, monitoring, and operation of remedial treatment sites as part of remediation and cleanup measures. Also includes regulatory oversight costs and acquisition of land if necessary to implement compliance and remediation measures. Activities will be performed at NASA installations, NASA-owned industrial plants supporting NASA activities, and other current or former NASA sites where NASA operations have contributed to environmental problems and is obligated to contribute to cleanup costs.

OVERVIEW

The Program represents this year's request on a phased approach prioritizing Agency requirements for environmental remediation measures that must be implemented within the next several years, as well as needed requirements for other environmental compliance measures and management system initiatives. Based on relative urgency and potential health hazards and safety, these activities are the highest priority requirements currently planned for accomplishment in FY 2004. Deferral of these necessary compliance and remediation measures would preclude NASA from complying with environmental requirements and regulatory agreements, and could jeopardize NASA operations. As studies, assessments, investigations, plans, regulatory approvals, and designs progress and as new discoveries or regulatory requirements change, it is expected that priorities may change and revisions to these activities may become necessary.

Go to NASA's Environmental Compliance and Restoration Program
http://www.hq.nasa.gov/office/codej/codeje/je_site/about_us/about_us.html

PROGRAM MANAGEMENT

The Environmental Compliance and Restoration (ECR) Program is managed from NASA Headquarters under the Office of Management Systems and involves all NASA facilities. Annual budget requirements are presented to the Institutional Review Board for concurrence. This is not an aerospace program and as such is not subject to the requirements of NPG 7120. The responsible office at NASA Headquarters is Code JE, Ms. Olga Dominguez.

TECHNICAL COMMITMENT

A comprehensive environmental program as directed under Executive Order 13148 and a host of federal, state, and local environmental regulations.

Technical Specifications	Current Baseline	FY04 President's Budget	Change from Baseline
Environmental Remediation Activities under the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), and State equivalent Statutes.			--
Environmental Compliance Requirements under 40 CFR and State and Local laws and regulations.			--
Environmental Management System Initiatives as required under Executive Order 13148.			--
Environmental functional reviews as required under Executive Order 13148.			--
Environmental resource stewardship requirements under federal, state, and local laws & regulations.			--

Schedule	Current Baseline	FY04 President's Budget	Change from Baseline
No set schedule/milestones exist for this ongoing program - instead, worst-first prioritization methods employed.	Oct 03 thru Sept 04	Oct 03 thru Sept 04	--

THEME: Space & Flight Support

DEVELOPMENT: Environmental Compliance and Restoration (ECR)

ACQUISITION STRATEGY & PERFORMING ORGANIZATIONS

Environmental Compliance and Restoration requirements are prevalent at all NASA locations and are contracted for through a variety of means at NASA's centers. This may include all of the different types of contracts and performers noted below. **Changes since FY03 Pres. Budget: None.**

Current Acquisitions	Actual *	Selection Method	Actual *	Performer	Actual *
Cooperative Agreements	0%	Full & Open Competition	55%	Industry	78%
Cost Reimbursable	63%	Sole Source	45%	Government	15%
Fixed Price	37%		100%	NASA Intramural	1%
Grants	0%			University	6%
Other	0%	Sci Peer Review	%	Non Profit	0%
* as % of FY02 direct procurement	100%	* as % of FY02 direct procurement		* as % of FY02 direct procureme	100%

Future Acquisitions - Major	Selection	Goals
no major acquisitions planned	n/a	n/a

AGREEMENTS

Most NASA centers perform environmental remediation under one or more regulatory agreements. These agreements range from very formal (as in the case of Consent Orders issued by courts or Federal Facility Agreements signed by NASA and the Environmental Protection Agency or the States) to less formal (outlines of project plans sent between Center environmental offices and State Regulatory Agencies). **Changes since FY03 Pres. Budget: None.**

INDEPENDENT REVIEWS

Types of Review	Performer	Last Review	Next Review	Purpose
Institutional Committee Reviews	IRC	May-03	May-04	Agency review of FY04 budget requirements for budget build.

BUDGET/LIFE CYCLE COST

*Total budget authority does not represent life cycle costs as this is an ongoing incrementally funded program.

Budget Authority ($ in millions)	Prior	FY02	FY03	FY04	FY05	FY06	FY07	FY08	BTC	Total	Comments
FY 2004 President's Budget (LCC)	*	41.0	41.0	41.0	41.0	41.0	41.0	41.0	*	*	
Development	*	41.0	41.0	41.0	41.0	41.0	41.0	41.0	*	*	
Changes since FY 03 Pres. Budget	*	-	-	-	-	-	-	+41.0	*	*	***Reason for Change:***
Development								+41.0	*	*	Continution of ECR program, as new sites are identified.
FY 2003 President's Budget (LCC)	*	41.0	41.0	41.0	41.0	41.0	41.0	0.0	*	*	NOTE: Per issued guidance,
Development	*	41.0	41.0	41.0	41.0	41.0	41.0		*	*	environmental projects are not subject to full-cost requirements.
Initial Baseline (LCC)	*	41.0	41.0	41.0	41.0	41.0	41.0	0.0	*	*	
Development (Feb '97)	*	41.0	41.0	41.0	41.0	41.0	41.0		*	*	

Indicates changes since the FY 2003 Presidents Budget Submit.

* BTC was not calculated for this program.

NOTE: Per issued guidance, environmental projects are not subject to full-cost requirements.

THEME: Space and Flight Support

OPERATIONS: Space Comm., Payload Carriers & Spt, Exp. Launch Vehicle Msn Spt, Prop. Test and Adv. Systems

PURPOSE

Objectives	Reference 2003 Strategic Plan	Performance Measures
8.5 Provide services for space communications, launch operations, rocket propulsion testing, and astronaut crew health and safety in support of NASA, other governments, and commercial interests.		4SFS17-20, 4SFS29-30

SPACE COMMUNICATION PROGRAM: Provide space communications services to STS, ISS, other low-Earth orbiting (LEO) satellites, and launch vehicles. PAYLOADS CARRIERS & SUPPORT PROGRAM: Provide access to space, via the Space Shuttle. EXPENDABLE LAUNCH VEHICLE (ELV) MISSION SUPPORT PROGRAM: (1) Provide mission success driven and cost effective launch services for NASA missions; (2) Provide mission analysis and feasibility assessments for NASA payload customers; (3) Increase efficiency in launch site operations; (4) Provide low cost secondary payload opportunities. PROPULSION TEST PROGRAM: Provide rocket propulsion test facilities in support of NASA programs, commercial partners and DoD. Space and Flight Support budget also provides for astronaut crew health and safety issues.

OVERVIEW

Space and Flight Support, managed by the Office of Space Flight, is comprised of four separate Agency-level services: SPACE COMMUNICATION PROGRAM: Comprised of two elements: (1) Space Network supporting space shuttle, ELVs and research aircraft; and (2) the NASA Integrated Services Network (NISN), providing telecommunications services among facilities. PAYLOADS CARRIERS & SUPPORT PROGRAM: Provides expertise, facilities and capabilities necessary to perform payload buildup, test and checkout, integration and servicing of multiple payloads, and integration and installation into the launch vehicle. ELV MISSION SUPPORT PROGRAM: Provides launch services across all launch vehicle classes (Small, Med-Lite, Medium, Intermediate, and NLS) for NASA unique missions. Supports launch site maintenance and sustaining operations at Vandenberg AFB and Cape Canaveral Air Station. PROPULSION TEST PROGRAM: Develop low-cost, safe, and reliable space transportation propulsion systems and testing of operational rockets. Program includes staff support at test facilties at SSC, MSFC, GRC and JSC-White Sands Test Faciltiy.

For more information, go to:
RPT: https://rockettest.ssc.nasa.gov/
Payload Carriers: Small Payloads Office - http://sspp.gsfc.nasa.gov
ELV: http://www.ksc.nasa.gov/elvnew/elv.htm

PROGRAM MANAGEMENT

Enterprise official is Mr. William F. Readdy, Associate Administrator for Space Flight at HQ. The OSF Program Management Council (PMC) has governing responsibility for the programs below.

SPACE COMMUNICATIONS: The Program Office Director is Robert Spearing, Assistant Associate Administrator for Space Communications, Office of Space Flight at HQ.

PAYLOADS CARRIERS / ELV PROGRAMS: The Program Office Director is Karen S. Poniatowski, Assistant Associate Administrator for Launch Services at HQ. KSC is responsible for the execution of both programs.

ROCKET PROPULSION TEST: The Program Office Director is Michael Dawson of Stennis Space Center.

TECHNICAL COMMITMENT

Data current as of 12/6/2002

The definition of the baseline is the FY 2003 Budget.

Technical Specifications	FY04 President's Budget	Change from Baseline
Space Network	Manage/operate 8 satellites.	-
NASA Integrated Services Network (NISN)	Manage NASA Integrated Services Network.	-
Expendable Launch Vehicle	Manage processing and launch facilities at KSC, Cape Canaveral Air Force Station and Vandenberg AFB.	-
Payloads	Manage processing facilities at KSC.	-
Rocket Propulsion Testing	Manage 24 test cells and the supporting facilities.	-

Schedule	FY04 President's Budget	Change from Baseline
Space Network	Provide system operational readiness.	-
NASA Integrated Services Network (NISN)	Provide 24/7 operational readiness of network.	-
Expendable Launch Vehicle	Support ELV manifest.	-
Payloads	Support Shuttle manifest.	-
Rocket Propulsion Testing	Maintain facilities in state of readiness.	-

THEME:	Space and Flight Support
OPERATIONS:	Space Communications, Payload Carriers & Spt, Expendable Launch Vehicle Msn Spt, Rocket Propulsion Test, and Advanced Systems

ACQUISITION STRATEGY & PERFORMING ORGANIZATIONS

The prime contractor for space communications/data services is Lockheed Martin under the Consolidated Space Operations Contract (CSOC), which covers 5 years of operations. This contract will not be renewed because a new procurement strategy is being developed to support a newly establsihed cross-Enterprise management approach. The prime contractor for TDRS Replenishment is Boeing. The contract term is 5 years and ends December 2003. It will not be renewed because the requirement for development and launching of three new satellites has been completed. Changes since FY03 Pres. Budget: None. The Expendable Launch Vehicle Integrated Support (ELVIS) contractor is the Analex Corporation. This contract covers 3 years of operations, renewable in FY2005. Changes since FY03 Pres. Budget: Contract Awarded May 2002. The Checkout and Payload Processing Services (CAPPS) contractor is the Boeing Space Operations Company. This contract covers 4 years of operations, renewable in FY2006. Changes since FY03 Pres. Budget: Contract Awarded August 2002. The primary Rocket Test contractor at each test site are as follows: SSC: Lockheed Martin and Mississippi Space Services; MSFC: LB&B; JSC/WSTF: Honeywell; GRC/PB: Plum Brook Operations Support Group (PBOSG).

Current Acquisitions	Actual *	Selection Method	Actual *	Performer	Actual *
Cooperative Agreements	0%	Full & Open Competition	100%	Industry	100%
Cost Reimbursable	77%	Sole Source	0	Government	0%
Fixed Price	23%		100%	NASA Intramural	0%
Grants	0%			University	0%
Other	0%	Sci Peer Review	0%	Non Profit	0%
* as % of FY02 direct procurement	100%	* as % of FY02 direct procurement		* as % of FY02 direct procur	100%

Future Acquisitions - Major	Selection	Goals
1. Space Comm. Operations	Dec '03	100% Full & Open comp., 15% Small business
2. RPT Consolidated Test Operations Contract (TOC).	July '03	100% Full & Open comp., 15% Small business

AGREEMENTS

Internal: Rocket Propulsion Test Management (RPT) Board (Intra-Center). **Changes since FY03 Pres. Budget: None.**

External: Three NASA & DoD Memorandums of Agreement for increased efficiencies between agencies.

INDEPENDENT REVIEWS

Types of Review	Performer	Last Review	Next Revie	Purpose
(RPT) Program Review	PIMC	Sep '02	Dec '02	Rocket Propulsion Testing quarterly review
(Space Comm) Assessment	Msn Ass. Off.	2002	-	Assess TDRS-J spacecraft readiness
(Space Comm) Audit	Insp. Gen.	2002	-	Review program management

BUDGET

Budget Authority ($ in millions)	FY02	FY03	FY04	Comments
FY 2004 President's Budget	600.9	238.7	343.6	
Space Communications	481.8	117.5	124.8	
TDRS Continuation [non-add]		[16.5]	[6.2]	
Payloads	57.0	51.7	76.2	
ELV	34.3	35.8	65.8	
Rocket Test	27.8	27.9	62.3	
Miscellaneous	0.0	5.8	14.5	
Changes since FY 03 Pres. Budget	-	+5.8	+23.7	***Reason for Change:***
Space Communications			+18.0	Operations, Technology & Standards Program
TDRS Continuation [non-add]		*[2.5]*	*[6.2]*	Formulation phase of new TDRS spacecraft
Payloads				Delta II Pad (Readjust Payload Carriers and
ELV				Realign to ELV (Delta II Pad)
Rocket test				
Miscellaneous	-	+5.8	+5.7	Realign Crew Health & Safety to Space Flt
Indicates budget numbers in Full Cost.				
Indicates changes since the FY 2003 Presidents Budget Submit.				

THEME: Space and Flight Support

TECHNOLOGY AND ADVANCED CONCEPTS: Advanced Systems Office

PURPOSE

Data current as of 12/6/2002

Objectives		Performance Measures
9.5	Develop innovative approaches and concepts to inform future decisions concerning systems, infrastructures and missions for human and robotic exploration of space.	4SFS23-25, 4SFS29-30
10.4	Define and implement technology investment strategies, including architecture definition, technology maturation and validation, and advanced systems development in support of future human and robotic exploration and development of space.	4SFS26-30

Define and implement investment strategies, including architecture definition, technology maturation and validation and advanced systems development in support of future human and robotic exploration and development of space in collaboration with other Enterprises, the Office of the NASA Space Architect, other Agencies, and other organizations. Define and provide Level 1 requirements related to future human and robotic exploration and development of space to NASA and others pursuing new space capabilities.

OVERVIEW

The Advanced Systems Office (ASO) is an organization within the Office of Space Flight. Working with other Enterprises and the recently-created NASA Space Architect's Office, the ASO supports the creation and enabling of a multi-Enterprise long-term vision for human and robotic exploration and development of space. The ASO (1) promotes alignment of Enterprise strategic plans. (2) Collects scientific requirements and generates technical and programmatic requirements to assess strategic technology investments and ongoing NASA Programs relevant to the office. (3) Conducts and coordinates advanced concepts analyses and develops new innovative approaches for space exploration. (4) Assesses technology programs and pursues alignment of relevant programs with the NASA Vision and Mission. (5) Identifies and promotes space development opportunities that are consistent with the Vision. (6) Identifies resources and requirements that could be added to an existing activity to yield benefits for more strategic purposes. (7) Serves as the source of studies for incubating the Agency's space exploration technology efforts and decision tools. (8) Manages a small portfolio ofspecific advanced concepts and technologies to cultivate ideas and concepts that could lead to future building blocks of critical capabilities. These activities are conducted wherever possible in collaboration with other organizations.

Go to Project Homepage for more information. NEXT.nasa.gov HEDSAdvSystems.nasa.gov

PROGRAM MANAGEMENT

Enterprise official is William Readdy, Associate Administrator for Space Flight at HQ. The Headquarters Program Director is John Mankins. The Advanced Systems Office is a newly-created organization. It will operate as a broadly-based cadre of innovators and engineers, lead by a focused team at NASA Headquarters in the Office of Space Flight. The ASO will work in close collaboration with various external organizations, including in particular the NASA Space Architect.

TECHNICAL COMMITMENT

Data current as of 12/6/2002

This program was formed in early FY03. The baseline is the FY2004 budget.

Technical Specifications	**FY04 President's Budget**	**Change from Baseline**
Develop studies	Identify concepts & technologies to be developed.	N/A
ASO will provide support to the recently created NASA Space Architect's office.		

Schedule	FY04 President's Budget	Change from Baseline
A schedule is being developed to identify projects.		N/A

THEME: Space and Flight Support

TECHNOLOGY AND ADVANCED CONCEPTS: Advanced Systems Office

ACQUISITION STRATEGY & PERFORMING ORGANIZATIONS

No major acquisitions are planned. There were no procurements in FY02, and no budget authority.
Changes since FY03 Pres. Budget: New program.

Current Acquisitions	Actual *	Selection Method	Actual *	Performer	Actual *
Cooperative Agreements	N/A	Full & Open Competition	N/A	Industry	N/A
Cost Reimbursable	N/A	Sole Source	N/A	Government	N/A
Fixed Price	N/A			NASA Intramural	N/A
Grants	N/A			University	N/A
Other	N/A	Sci Peer Review	N/A	Non Profit	N/A
* as % of FY02 direct procurement		* as % of FY02 direct procurement		* as % of FY02 direct procurement	

Future Acquisitions - Major	Selection	Goals
Annual NASA Research Announcements (NRA)	TBD	100% of NRA competitive activities will be peer reviewed.

AGREEMENTS

Internal: Memorandum of Agreement among the Office of Space Science, the Office of Biological and Physical Research, and the Office of Space Flight. establishing the NASA Exploration Team (NEXT).
External: None yet created.

INDEPENDENT REVIEWS

Types of Review		Performer	Last Review	Next Review	Purpose
Technology					
TBD					
Advanced Concepts					
None to date					

BUDGET

Budget Authority ($ in millions-Full Cost)	FY02	FY03	FY04	Comments
FY 2004 President's Budget(Adv. Conc.)	0.0	0.0	6.0	
Advanced Systems	0.0	0.0	6.0	
Changes since FY 03 Pres. Budget	-	-	+6.0	***Reason for Change:***
Advanced Systems			+6.0	New Program

Indicates budget numbers in Full Cost.
Indicates changes since the FY 2003 Presidents Budget Submit.