



The Payload Operations Integration Center (POIC), located at Marshall Space Flight Center (MSFC), provides operational payload flight control, planning, and development systems for the ISS.

Research Partnerships and Flight Support

MAJOR EVENTS IN FY 2005

All Research Partnership and Flight Support (RPFS) major events listed below will be accomplished **pending the Exploration Replanning**.

- ☒ As part of its realignment plan, Space product Development (SPD) will develop new research partnerships with other divisions of BPRE, other NASA Enterprises and other federal agencies.
- ☒ SPD will initiate a new funding allocation system for the Research Partnership Centers (RPCs), which will incorporate the realignment objectives.
- ☒ SPD will start work on four new realignment initiatives that directly address NASA's mission and involve the RPC industrial partners.
- ☒ SPD will expand its education and outreach activities to engage the public in NASA's missions, discoveries and technology.
- ☒ The ISS Downlink Enhancement Architecture (IDEA) will demonstrate 150 MBS communication for ISS research. (MUSS)
- ☒ The ISS will have the capability for -80C cold stowage of research samples upon launch of the Minus Eighty-Degree Laboratory for ISS (MELFI) freezer unit in FY2005. (MUSS)
- ☒ Mid-deck locker size units will be developed to provide additional volume for storing research samples at +4C, -20C and -180C. (MUSS)

Theme: Research Partnerships and Flight Support

OVERVIEW

PENDING EXPLORATION REPLANNING. The Research Partnerships and Flight Supports (RPFS) theme is currently composed of several sections that directly contribute to many objectives of the NASA mission: Space Product Development (SPD), Research Partnership Centers (formerly known as Commercial Space Centers), Multi-User Systems and Support (MUSS), and the Alpha Magnetic Spectrometer (AMS). The Space Product Development and the Research Partnership Centers will further NASA's mission by establishing industry-university-government partnerships making use of NASA assets, academic expertise and industry market knowledge and investment. The SPD and RPC programs are being realigned such that all activities contribute directly to the Agency mission while simultaneously providing industry researchers an access to conduct space-based experimentation they deem necessary to advance applications on earth. The dual-use philosophy allows both industry and NASA to benefit from the activities with industry and NASA sharing the costs. (Note: RPFS will be conducting a major review of priorities to ensure alignment of activities with the new Exploration vision. Some of the specific activities described here may change.)

The RPFS theme also includes the cross-cutting functions of Multi-User Systems & Support (MUSS), which encompasses the multi-use hardware development projects, and the overall ISS Shuttle, Progress, and Soyuz payload integration, ground processing, and operations support.

Finally, the RPFS theme currently includes integration responsibilities for the Alpha Magnetic Spectrometer (AMS), a major high-energy space particle physics experiment planned for the ISS with the U. S. Department of Energy.

Missions	Goals supported by this Theme	Objectives supporting these Goals
To Understand and Protect Our Home Planet	3. Create a more secure world and improve the quality of life by investing in technologies and collaborating with other agencies, industry, and academia.	3.2 Improve the Nation's economic strength and quality of life by facilitating innovative use of NASA technology. 3.3 Resolve scientific issues in the low gravity environment of space that enrich life on Earth by leading to better design tools in energy, materials, medical, and communication technologies.
To Inspire the Next Generation of Explorers	7. Engage the public in shaping and sharing the experience of exploration and discovery.	7.1 Improve public understanding and appreciation of science and technology, including NASA aerospace technology, research, and exploration missions.

RELEVANCE

The SPD program provides research partners with the capabilities to pursue product lines with dual purpose applications which include improving NASA spacecraft and commercial aircraft safety, improving human health in space and on Earth, creating enabling technologies for exploration and development of space, and supporting the Biological and Physical Research Enterprise (BPRES) strategic and fundamental research goals (see Annual Performance Goal 5RPFS2) and ensuring the safety of our planet. MUSS provides end-to-end payload integration processing from initial manifesting; it provides engineering integration, training, mission integration, ground testing, on-orbit operations, and finally return of the experiment to the Principle Investigator for the ISS. MUSS develops and sustains multi-use hardware for Payload/Principle Investigators. AMS will study the origin of the Universe, and in particular, search for mysterious forms of matter such as anti-matter, dark matter, and strange matter, if existing.

Education and Public Benefits

The SPD program results in research lead to new businesses, products, and services that are of value to NASA, the public, and the national economy. Products have or may come on the market that support human health, agriculture, and new technologies in communication, power generation, and many other areas. Examples of product lines are: Nutraceuticals, functional foods and biopharmaceuticals, fermentation research, flavors and fragrances, structure-based drug design improved insulin formulation, porous ceramic bone replacements, catalytic combustion, water mist fire suppression technology, and advanced casting techniques. Through partner universities, many college students are involved in this research. This "hands-on" experience provides students with expertise in emerging fields, a direct understanding of the benefits of the space environment for research and development, and awareness of the needs of industry.

IMPLEMENTATION

PENDING EXPLORATION REPLANNING. This Theme is composed of the Space Product Development Division and the Mission Integration Division at NASA Headquarters Office of Biological and Physical Research, the SPD Office at Marshall Space Flight Center (MSFC), and the RPCs, and the Johnson Space Center (JSC) Payloads Office to achieve the aforementioned goals and objectives. POC is Dr. Frank Schowengerdt, Director of the Space Product Development Division, and Peter Ahlf, Acting Director of the Mission Integration Division. Full compliance with NPR 7120.5B will be achieved in FY04 for the relevant portions.

Theme: Research Partnerships and Flight Support

IMPLEMENTATION SCHEDULE

Theme Element	Schedule by Fiscal Year											Purpose			
	95	96	97	98	99	00	01	02	03	04	05		06	07	08
SPD: 1) Fund Research Partnerships	[Green bar from 95 to 05]											Fund current research and begin to refocus the overall program.			
SPD: 2) Refocus and rescope the Research Partnerships	[Green bar from 95 to 05]											Transition emphasis to continue dual use research that is directly related to the NASA mission.			
MUSS: Payload Operations and Integration Center (POIC)	[Yellow bar from 95 to 02, Green bar from 03 to 10]											The POIC provides operational payload flight control, planning, and development systems for the ISS.			
MUSS: EXPRESS Racks	[Yellow bar from 95 to 02, Green bar from 03 to 10]											The EXPRESS rack is a standardized payload rack system that transports, stores, and supports experiments aboard the ISS.			
MUSS: Window Observational Research Facility (WORF)	[Yellow bar from 95 to 02, Green bar from 03 to 10]											WORF is a payload rack uniquely built to take full advantage of the optical quality window to the U.S. Lab.			
<input type="checkbox"/> Tech & Adv Concept <input type="checkbox"/> Development <input type="checkbox"/> Operations <input type="checkbox"/> Research															

STATUS

In FY 2002, SPD transitioned four RPCs from another NASA Enterprise. Some of the major accomplishments included the flight of six commercial research experiments to the ISS, the addition of more than 15 new industrial partners, and the marketing of two commercial products. Currently, the SPD and RPC programs are being rescoped to ensure that all of NASA's investments will directly contribute to the overall mission.

PERFORMANCE MEASURES

Outcomes/Annual Performance Goals (APGs)	
<i>Outcome 3.2.2</i>	<i>By 2008, realign commercial product development to focus on NASA needs, while maintaining industrial partnerships.</i>
5RPFS1	Implement SPD realignment plan by establishing three partnerships between SPD and other divisions of OBPR.
5RPFS2	Involve RPC industrial partners in at least one new project that directly benefits NASA's mission.
<i>Outcome 3.2.3</i>	<i>By 2008, develop and test at least two design tools for advanced materials and in-space fabrication, and validate on ISS.</i>
5RPFS3	Based on present manifest, begin on-orbit containerless processing of new ceramic materials using Space-DRUMS hardware installed on ISS.
<i>Outcome 3.2.4</i>	<i>By 2008, working with all OBPR research organizations and other NASA enterprises, identify at least three additional users of Research Partnership Center spaceflight hardware.</i>
5RPFS4	Promote availability of RPC-built spaceflight hardware throughout NASA utilizing the new database.
5RPFS5	Implement hardware sharing system.
5RPFS6	Identify and develop a working relationship with at least one new non-SPD user of RPC-built spaceflight hardware.
<i>Outcome 3.3.3</i>	<i>By 2008, develop at least three new leveraged research partnerships with industry, academia, and other government agencies that improve NASA spacecraft safety.</i>
5RPFS7	Develop a prototype system based on one new enabling technology to improve the safety of space transportation systems
<i>Outcome 7.1.4</i>	<i>Engage the public in NASA missions, discoveries and technology through public programs, community outreach, mass media, and the Internet.</i>
5RPFS8	Through collaboration with PAO, establish and sustain a series of media briefings highlighting OBPR research.
5RPFS9	Expand outreach activities that reach minority and under-represented sectors of the public, through increased participation in conferences and community events that reflect cultural awareness and outreach. Each fiscal year, increase the previous year baseline by supporting at least one new venue that focuses on these public sectors.
Uniform Measures	
5RPFS10	Deliver at least 90% of scheduled operating hours for all operations and research facilities.

Theme: Research Partnerships and Flight Support

INDEPENDENT REVIEWS

Review Types	Performer	Last Review Date	Next Review Date	Purpose
Types of Reviews	Performer	Last Review Date	Next Review Date	Purpose
Space Station Independent Assessment	NASA	10/01	N/A	Assessment of ISS Program and the MUSS activities.
POCAAS	Independent Committee	1/02	N/A	assessment of payload operations and associated flight/ground architecture
Research Prioritization Independent Rev	Booz Allen Hamilton	2/04	11/05	HQs directed retrospective evals of tasks, progress, & status of RPs every 3 yrs
Space Station Utilization Adv. Committee	Independent Committee	6/03	6/04	Review and advise on overall utilization of the International Space Station.
ReMaP	Independent Committee	9/02	N/A	Set priorities for ISS research.

BUDGET

Budget Authority (\$ millions)	FY 2003	FY 2004	Change	FY 2005	Comments
Research Partnerships and Flight Support	170.0	260.0	-3.0	257.0	Pending Exploration Replanning
<u>Operations</u>	<u>138.5</u>	<u>229.0</u>	<u>+4.4</u>	<u>233.4</u>	
Operations - Space Product Development	15.4	18.6	-10.4	8.2	
Operations - Multi-User System and Support	123.1	210.4	+14.8	225.2	
<u>Research</u>	<u>31.6</u>	<u>31.0</u>	<u>-7.4</u>	<u>23.6</u>	

Indicates changes since the previous year's President's Budget Submit
 Indicates budget numbers in full cost.

Theme: Research Partnerships and Flight Support
Operations: Space Product Development

PURPOSE

Objectives	Performance Measures
3.2	5RPFS1-6,10

PENDING EXPLORATION REPLANNING. The Space Product Development (SPD) and the Research Partnership Centers (RPC) will further NASA's mission by establishing industry-university-government partnerships, making use of NASA assets, academic expertise, and industry market knowledge and investment. SPD and RPC programs have been realigned such that all activities contribute directly to the Agency mission while assuring that industry researchers have efficient access to space. The dual use philosophy allows both industry and NASA to benefit from the activities with industry and NASA sharing the costs (see 5RPFS1). (Note: RPFS will be conducting a major review of priorities to ensure alignment of activities with the new Exploration vision. Some of the specific activities described here may change.)

OVERVIEW

The SPD and RPC programs provide research partners with the capabilities to pursue product lines with dual-purpose applications which include improving NASA spacecraft and commercial aircraft safety, improving human health in space and on Earth, creating enabling technologies for exploration and development of space, and supporting BPRE strategic and fundamental research goals and Annual Performance Goals.

PROGRAM MANAGEMENT

The SPD program responsibility is delegated to Mary Kicza, the BPRE Associate Administrator, to the Headquarters Division Director and then to Marshall Space Flight Center under the authority of the Space Product Development Office. The Commercial Advisory Subcommittee (CAS) assists in an advisory capacity. Projects of the RPCs are subject to the project requirements of the RPCs. For details, see the SPD Program Plan (a copy can be obtained through the MSFC Space Product Development Office). Full compliance with NPR 7120.5B will be achieved in FY04 for the relevant portions.

TECHNICAL COMMITMENT

PENDING EXPLORATION REPLANNING. The definition of the baseline is contained in the SPD FY04 President's Budget Submit dated January 2003.

Technical Specifications	FY 2005 President's Budget	Change from Baseline
Hydrospectral Sensor for Global Environmental Imaging and Analysis (HYGEIA)	H/W Ready-1/05	--
HDMAX Space Camera System	Preliminary Design Review(PDR)-10/03; Critical Design Review(CDR)-2/04; H/W Ready 1/05	--
Space Dynamically Responding Ultrasonic Matrix System (Space DRUMS)	PDR-10/98; CDR-9/99; H/W Ready-'02	--
Zeolite Crystal Growth High Temperature Furnace (ZCG-HTF)	PDR-03/01; CDR-11/01; H/W-12/02	--
Commercial Biomedical Testing Module (CBTM)	PDR-02/03; CDR-09/03; H/W Ready-04	--
Commercial Generic Bioprocessing Apparatus (CGBA)	PDR-Completed; CDR-Completed; H/W Ready-02	--
Plant Generic Bioprocessing Apparatus (PGBA)	PDR-Completed; CDR-Completed; H/W Ready-03	--
Commercial Protein Crystal Growth-High Density (CPCG-H)	PDR-Completed; CDR-Completed; H/W Ready-04	--
Commercial Protein Crystal Growth-Video (CPCG-V)	PDR-9/97; CDR-8/99; H/W Ready-03	--
Development of Organic Materials for Electronics (DOME)	PDR-8/01; CDR-12/01; H/W-TBD-03	--

Schedule	FY 2005 President's Budget	Change from Baseline
2002-2004, 2005-2007	Independent review of Research Partnership Centers, 3 year cycle.	--
April 2002-2007	6-month review of RPC milestone accomplishments.	--
Nov 2002-2007	Annual renewal of Research Partnership Center Cooperative Agreements.	--

Theme: Research Partnerships and Flight Support
Operations: Space Product Development

ACQUISITION STRATEGY AND PERFORMING ORGANIZATIONS

The SPD/ISSRC program is in place through five-year Cooperative Agreements with competitively-procured university-based Research Partnership Centers. These agreements are renewable each year after receipt of the annual report and other indicators that the agreed milestones/deliverables have been met.

Current Acquisition	Actual*	Selection Method	Actual*	Performer	Actual*
Cooperative Agreement	83%	Full & Open Competition	100%	Industry	13%
Cost Reimbursable	0%	Sole Source	0%	Government	0%
Fixed Price	13%			NASA Intramural	4%
Grants	0%		100%	University	78%
Other	4%	Sci Peer Review	%	Non Profit	5%
*As of FY 2003 direct procurement	100%	*As of FY 2003 direct procurement	100%	*As of FY 2003 direct procurement	100%

Future Acquisition	Selection	Goals
H/W Testing Contract	----	Renew as contract expires to maintain continuous support.
ISS Manifest Contract	Fall '05	New contract needed starting in FY05

AGREEMENTS

Internal: None. External: Space Act Agreements with private companies/individuals. Cooperative Agreements are in existence with each RPC and host university. Changes since FY04 President's Budget: None.

RISK MITIGATION

Risk Date: 1/15/2004

Top Risks	Y	Overall	G	Cost	Y	Schedule	G	Technical	Probability	Impact	Mitigation Plan
R									High	High	Strategic Realignment underway
R									High	High	Strategic Realignment underway

INDEPENDENT REVIEWS

Review Types	Performer	Last Review Date	Next Review Date	Purpose
RPC Independent Review	Booze Allen Hamilton	2/04	11/05	HQ directed retrospective evals of tasks, status & progress of RPCs every 3 yrs
ReMAP	Independent Committee	9/03	N/A	Set Priorities for ISS research

BUDGET

Budget Authority (\$ millions)	FY 2003	FY 2004	FY 2005	Comments
<u>FY2005 PRESBUD</u>	15.4	18.6	8.2	
Operations	15.4	18.6	8.2	
<u>Changes since 2004 PRESBUD</u>	-0.4	-0.2		
Operations	-0.4	-0.2		Realignment of SPD Program elements to better serve NASA Mission.
<u>FY2004 PRESBUD</u>	15.8	18.8		
Operations	15.8	18.8		

Indicates changes since the previous year's President's Budget Submit
Indicates budget numbers in full cost.

Theme: Research Partnerships and Flight Support
Operations: Multi-User System and Support

PURPOSE

Objectives	Performance Measures
4.1, 4.2	5RPFS10

PENDING EXPLORATION REPLANNING. MUSS's objective is to provide end-to-end payload integration processing. MUSS provides the following services to enable ISS research; Initial manifesting, engineering integration, crew training, mission integration, ground testing, on-orbit operations, and experiment return. MUSS also develops and sustains multi-use hardware for the Principal Investigators. (Note: RPFS will be conducting a major review of priorities to ensure alignment of activities with the new Exploration vision. Some of the specific activities described here may change.)

OVERVIEW

The Multi-User Systems and Support (MUSS) encompasses the multi-use hardware development projects, and the overall ISS payload integration and operations support. Multi-use hardware development projects include the EXPedite the PProcessing of Experiments to Space Station (EXPRESS) Racks and EXPRESS Transportation Racks, and the Window Observational Facility (WOLF). Logistics and sustaining engineering is supported for these racks, as well as the Human Research Facility, and the Habitat Holding Racks (HHRs). Development oversight is provided for the EXPRESS Pallet as well. New active and passive biotransportation freezer units are presently undergoing a procurement phase. Utilization support services for ISS payload integration and operations are provided to both U.S. and International Partners. This includes services for payload planning and engineering support, crew and user team training, sub-rack and sub-pallet level payload integration, ground processing, and on-orbit payload operations for all research related hardware and software on-board the ISS. The utilization effort also includes the development and operations of the ground facilities, including the Payloads Operations Information Center (POIC) and the Payloads Office Integration Function (POIF).

PROGRAM MANAGEMENT

Enterprise Official is Mary Kicza, Associate Administrator, with Peter Ahlf as the Acting Mission Integration Division Director and Naseem Saiyed as the Program Executive. MUSS program management is implemented by the Johnson Space Center Payloads Office (JSC/OZ) by Dan Hartman, Acting Director. Full compliance with NPR 7120.5B will be achieved in FY04 for the relevant portions.

TECHNICAL COMMITMENT

PENDING EXPLORATION REPLANNING. The definition of the baseline is as of the FY 2004 President's Budget Submit January 2003.

Technical Specifications	FY 2005 President's Budget	Change from Baseline
ISS Downlink Enhancement Architecture (IDEA)	Enable 150 mbs communications for ISS research	--
MERLIN-2	7 Flight Units, 1 Qualification Unit all with the capability of +4/-26 degrees C	--
Passive Rack Isolation System (PaRIS)	Deliver 3 units	--
General Laboratory Active Cryogenic ISS Experiment Refrigerator (GLACIER)	2 Flight Units, 1 Qualification Unit all with the capability of -180 degrees C	--
Minus Eighty-degree Laboratory for ISS (MELFI)	Integrate for launch	--

Schedule	FY 2005 President's Budget	Change from Baseline
PaRIS for HHR-2	March 2004	--
MERLIN-2	April/May 2004	--
MELFI	October 2004	--
IDEA	December 2004	--
GLACIER	September 2006	--

Theme: Research Partnerships and Flight Support
Operations: Multi-User System and Support

ACQUISITION STRATEGY AND PERFORMING ORGANIZATIONS

The prime contractor for the POIC is Lockheed Martin. Present work includes sustaining engineering and maintenance of the facility. This contract runs through the end of FY04 and subsequently recompeted. The prime contractor for the ISS Payload Integration Contract is Boeing. This contract runs through FY04 with an option for FY05. In FY02, direct procurement represented 100% of budget authority. Changes since FY03 President's Budget: None.

Current Acquisition	Actual*	Selection Method	Actual*	Performer	Actual*
Cooperative Agreement	0%	Full & Open Competition	50%	Industry	75%
Cost Reimbursable	100%	Sole Source	50%	Government	0%
Fixed Price	0%			NASA Intramural	25%
Grants	0%		100%	University	0%
Other	0%	Sci Peer Review	%	Non Profit	0%
*As of FY 2003 direct procurement	100%	*As of FY 2003 direct procurement		*As of FY 2003 direct procurement	100%

AGREEMENTS

Internal: None. External: None. Changes since the FY04 President's Budget: None.

RISK MITIGATION

Risk Date: 1/15/2004



Top Risks	G	Overall	G	Cost	G	Schedule	G	Technical	Probability	Impact	Mitigation Plan
G		MERLIN - 2 (new development item)							Low	Medium	In place
Y		GLACIER (new development item)							Medium	Medium	In place
G		MELFI (on-orbit performance)							Low	Medium	In Place

INDEPENDENT REVIEWS

Review Types	Performer	Last Review Date	Next Review Date	Purpose
POCAAS	Independent Assessment	1/02	N/A	Assess payload ops and associated flight/ground architecture.
ReMAP	Independent Committee	9/02	N/A	Set Priorities for ISS research
Space Station Utilization Adv. Committee	Independent Committee	6/03	6/04	Review and advise on overall utilization of International Space Station

BUDGET

Budget Authority (\$ millions)	FY 2003	FY 2004	FY 2005	Comments
<u>FY2005 PRESBUD</u>	123.1	210.4	225.2	
Operations	123.1	210.4	225.2	
<u>Changes since 2004 PRESBUD</u>	-15.8	-1.8		
Operations	-15.8	-1.8		
<u>FY2004 PRESBUD</u>	138.9	212.2		
Operations	138.9	212.2		

 Indicates changes since the previous year's President's Budget Submit
 Indicates budget numbers in full cost.

Theme: Research Partnerships and Flight Support

Research: Research Partnership Centers

PURPOSE

Objectives	Performance Measures
3.2, 3.3	5RPFS1-7

PENDING EXPLORATION REPLANNING. The Space Product Development (SPD) and the Research Partnership Centers (RPC) will further NASA's mission by establishing industry-university-government partnerships making use of NASA assets, academic expertise, and industry market knowledge and investment. The RPC program is being realigned to provide dual use for its programs benefiting industry and supporting NASA's vision and mission while sharing costs. (Note: PSR will be conducting a major review of priorities to ensure alignment of activities with the new Exploration vision. Some of the specific activities described here may change.)

OVERVIEW

The Research Partnership Centers are in the process of being realigned to provide industry, academia, and other government agencies the opportunity to pursue dual purpose products that can eventually be brought to market and that support NASA's mission. These partnerships provide financial support to product lines that improve NASA spacecraft and commercial aircraft safety, improve human health in space and on Earth, create enabling technologies for exploration and development of space, and support BPRE strategic and fundamental research goals.

PROGRAM MANAGEMENT

The RPCs program responsibility is delegated to Mary Kicza, the BPRE Associate Administrator, to the Headquarters Division Director then to Marshall Space Flight Center under the authority of the Space Product Development Office. The Commercial Advisory Subcommittee (CAS) assists in an advisory capacity. All projects of the RPCs are subject to the project requirements of the RPCs. For details, see the SPD Program Plan (a copy can be obtained through the MSFC Space Product Development Office). Full compliance with NPR 7120.5B will be achieved in FY04 for the relevant portions.

TECHNICAL COMMITMENT

PENDING EXPLORATION REPLANNING. The definition of the baseline is described in the FY04 President's Budget dated January 2003.

Technical Specifications	FY 2005 President's Budget	Change from Baseline
Bioserve Space Technologies Center	Antibiotic production, lignification studies	In Transition (Biotech)
Center for Advanced Microgravity Materials Processing	Zeolites/Nucleation and Control Methods	In Transition (materials)
Center for Commercial Applications of Combustion in Space	SpaceDRUMS, Water Mist	In Transition (materials)
Center for Biophysical Sciences and Engineering	Organ Rejection, Auto Immune, Protein Crystal Growth, Drug Design	In Transition (Biotech)
Center for Space Power	Miniaturization technology, etc.	In Transition (Infrastructure)
Commercial Space Center for Engineering	Engineering Center	In Transition (Infrastructure)
Consortium for Materials Development in Space	Organic Luminescence	In Transition (Biotech/Mat.)

In FY 2004 the RPC program will be realigned and reduced to ensure that all of NASA's investments are directly contributing to the Agency vision and mission.

Schedule	FY 2005 President's Budget	Change from Baseline
6-month reviews	April and October	None
Annual Renewals	November	None
Independent Reviews	2003, 2006, 2009	None

ACQUISITION STRATEGY AND PERFORMING ORGANIZATIONS

The SPD program is accomplished through the competitively selected, university based Research Partnership Centers. These Centers are brought on-board through five-year Cooperative Agreements, which are renewable yearly after mutually agreed-to milestones and deliverables have been met.

Current Acquisition	Actual*	Selection Method	Actual*	Performer	Actual*
Cooperative Agreement	60%	Full & Open Competition	100%	Industry	26%
Cost Reimbursable	0%	Sole Source	0%	Government	0%

Theme: Research Partnerships and Flight Support

Research: Research Partnership Centers

Current Acquisition	Actual*	Selection Method	Actual*	Performer	Actual*
Fixed Price	26%			NASA Intramural	14%
Grants	0%		100%	University	56%
Other	14%	Sci Peer Review	%	Non Profit	4%
*As of FY 2003 direct procurement	100%	*As of FY 2003 direct procurement		*As of FY 2003 direct procurement	100%

Future Acquisition	Selection	Goals
Outreach Contract	Fall '05	New contract needed starting in FY06.
Media Relations Contract	---	Renew as contract expires to maintain continuous support.
Graphics Contract	---	Renew as contract expires to maintain continuous support.
Renewal of Cooperative Agreements (CA)	Fall '05	CA renewal based on recipient meeting agreed to milestones in current year CA.
Independent Review Contract	Fall '05	Contract for Independent review every 3 years

AGREEMENTS

Internal: None. External: Space Act Agreements are in existence with private companies. Cooperative Agreements are in existence with each RPC and host university.

RISK MITIGATION

Risk Date: 1/15/2004


Top Risks	Y	Overall	G	Cost	Y	Schedule	G	Technical	Probability	Impact	Mitigation Plan
Y	Loss of industry participation/resources as a result of NASA mission focus							High	High	Realignment	


INDEPENDENT REVIEWS

Review Types	Performer	Last Review Date	Next Review Date	Purpose
RPC Independent Review	Booz Allen H.	2/04	11/05	HQ directed retrospective eval of tasks, status, & progress of RPCs every 3 yrs
ReMAP	Independent Committee	9/03	N/A	Set Priorities for ISS research

BUDGET

Budget Authority (\$ millions)	FY 2003	FY 2004	FY 2005	Comments
<u>FY2005 PRESBUD</u>	31.6	31.0	23.6	
Research Partnership Centers (RPC)	18.0	14.1	8.7	
Alpha Magnetic Spectrometer/ Mission Integration	0.2	3.4	3.5	
Program Support Funds Consolidation	13.4	13.5	11.4	
<u>Changes since 2004 PRESBUD</u>	+16.8	+1.2		
Research Partnership Centers (RPC)	+3.4	+1.2		Realignment of SPD program elements to better serve the NASA Mission
Alpha Magnetic Spectrometer/ Mission Integration	+0.2	-		
Program Support Funds Consolidation	+13.2	-		
<u>FY2004 PRESBUD</u>	14.8	29.9		
Research Partnership Centers (RPC)	14.6	13.0		
Alpha Magnetic Spectrometer/ Mission Integration		3.4		
Program support funds consolidation	0.2	13.5		

 Indicates changes since the previous year's President's Budget Submit

 Indicates budget numbers in full cost.