



Recovery Act Program Plan

For

Cross-Agency Support: Institutional Investments

Within the

**American Recovery and Reinvestment
Act of 2009**

Program: NASA Cross Agency Support: Institutional Investments
TAFS: 80-0121
Date Submitted: May 15, 2009

Program-Specific Recovery Plan for Recovery.gov	
Does this program align with an existing PART program?	No
Does this program align with an existing CFDA program?	No
If it does not correspond to existing PART or CFDA, please enter Program Title	NASA Cross Agency Support: Institutional Construction of Facilities JSC Hurricane Repairs
1. Objectives	
Program Purpose	To accomplish its science and technical missions, NASA relies on the availability of core institutional services. The goal of the Institutional Investments Program is to strategically invest funds to assure availability of critical facilities and meet Agency infrastructure needs for the safe and efficient conduct of agency missions. Recovery funds will be used to sustain NASA critical infrastructure by repairing the Johnson Space Center facilities damaged during Hurricane Ike in September 2008.
Public Benefits	<p>Recovery Act funds for Institutional Investments Program will assure that key infrastructure capabilities are available for the conduct of NASA's mission and will create jobs. Maintaining the ability to effectively and efficiently conduct NASA's programs, by having key infrastructure available, ensures public funds are well spent, and that scientific and engineering knowledge from programs can be transferred to the public sector.</p> <p>Institutional Investments funds the critical infrastructure investments required at all NASA installations to ensure employees can safely and efficiently conduct the agency's missions. Institutional Investments funding ensures that NASA's facilities and field installations meet the Agency's infrastructure needs in a safe, secure, and environmentally sound manner. Activities implement sustainable design practices, and support compliance with state and national environmental laws and initiatives outlined under the Energy Policy Act of 2005.</p> <p>The facilities being repaired with Institutional Investments funding at the Johnson Space Center in Houston, Texas, are crucial to NASA's human spaceflight missions. These missions include but are not limited to flyout of the Space Shuttle Program, completion of assembly of the International Space Station, operation and utilization of the ISS, implementation of the Constellation Program including the Orion Project and support for Commercial Crew & Cargo Program.</p> <p>Information about this program is available to the public in the following ways:</p> <ol style="list-style-type: none"> 1. Plans are available at the NASA.gov/recovery website 2. Solicitations and other procurement information is available at FedBizOps.gov

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	3. Performance information reported by the recipients will be available at www.recovery.gov
2. Projects and Activities:	
Kinds and scope of projects and activities to be performed	<p>The activities involve construction work including repair of roofs and loggia on several dozen buildings at the Johnson Space Center in Houston, Texas. They also include replacement of leaking windows; waterproofing of exterior building walls; repair of street, parking lot and sidewalk lights; reconstruction of a hangar at Ellington field and safing of a barge dock on Clear Lake.</p> <p>The hurricane damage was extensive and urgent repairs were undertaken in Phase I. Phase I included the work that was most immediate, and is underway. Phase II of the program addresses the repair effort. For more information, go to http://www.nasa.gov/recovery/agency-plans/acquisition/cas.html</p> <p>The Recovery funds for the Cross-Agency Support: Institutional Investments Program add \$50 million for repair of buildings at Johnson Space Center damaged by Hurricane Ike in September 2008. NASA grouped the repair activities in a manner that balanced, to the maximum extent practicable, competition and small business participation. NASA created a total of nine work packages (repair activities of similar kind, area or operation) that will be managed to the same schedule, and subject to NASA's standard processes and procedures for construction of facilities.</p>
3. Characteristics:	
Types of Financial Awards to be used	All work will be accomplished with contracts.
Type of Recipient	The recipients of this work will be for profit organizations and small businesses.
Type of Beneficiary	The primary beneficiaries are Engineers/Architects and Builders/Contractors/Developers
4. Major Planned Program Milestones:	
Schedule with milestones for major phases of the program's delivery	Schedules for all nine work packages have been developed. A work package is a discrete amount of planned activity and may be performed by different providers and on different timeframes. Summary-level major milestones are detailed below. This project plan along with other information related to Institutional Investments for Cross-Agency Support (CAS) activities is available on the NASA/Recovery website at http://www.nasa.gov/recovery/agency-plans/acquisition/cas.html
Milestone #1	Solicitations Issued
Expected Completion Date for Milestone #1	5/9/2009
Milestone #2	Contracts Awarded

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Expected Completion Date for Milestone #2	7/31/2009
Milestone #3	Construction Complete
Expected Completion Date for Milestone #3	9/30/2010
5. Monitoring and Evaluation:	
Monitoring/Evaluation: Description of Agency periodic review and review of partners progress	<p>NASA uses multiple methods, processes, and entities for monitoring and evaluating its performance. These same processes and procedures will be used for activities funded under the Recovery Act. NASA’s programs are assessed for relevance, quality, and performance. A relevance review assures alignment with national priorities; alignment with the NASA Strategic Plan; impact on related fields of research or technology; and alignment with “customer” (users of NASA data, research results, etc.) needs. Determining quality is generally prospective and assures “best value” for an investment, using peer review processes. Performance reviews evaluate whether a program is on track to meet its baseline performance commitments (cost, schedule, science/technical deliverable).</p> <p>Responsibility for program and project management and their control mechanisms (NASA Procedural Requirements (NPR) 7120 series)*, institutional management (NPR 8500 series)*, and financial management (NPR 9010 and 9120 series)*, occurs at all management levels of the Agency. NASA’s management monitors different aspects of program or institutional performance, at the highest Agency levels, and uses a rigorous structure of program and management reviews for Agency-level decisions. To continue through each phase of development, programs must demonstrate, on an on-going basis and at key life cycle junctures, an ability to manage in a manner that produces identifiable results, and must document performance against previously defined commitments including multi-year outputs, annual performance goals, milestones and other metrics, as appropriate.</p> <p>NASA internally monitors performance through monthly and quarterly reviews, at each management level. At the senior management level, program reviews, accompanied by an independent (internal) assessment, occur across all mission areas (aeronautics, science, space operations and exploration systems), with an in-depth review each quarter rotating among the mission organizations. Senior management also reviews institutional data (finance, human capital, acquisition, infrastructure), and aggregated Agency measures and metrics, e.g., safety, cross-cutting technical and non-technical issues. The data reviewed, and the accompanying analysis, allows the Agency to focus on, and proactively address, issues that could lead to not achieving desired performance goals.</p> <p>Specifically, standard NASA construction-of-facilities processes and procedures are defined in NASA Procedural Document (NPD) 7120.7 (NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements) and the facilities program as described in NPR 8820.2F (Facilities Project Requirements). Each construction activity will be</p>

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	<p>monitored and desired progress evaluated through: periodic reports of project conditions and activities including safety related information from the construction contractor. Each SOW will also have defined metrics including where appropriate a schedule of values that will be used as the basis for reviewing and approving monthly progress payments to the contractor. Ensuring high quality of project work is also emphasized and included in SOW requirements to the contractor. As work progresses, the contractor receives regular quality assurance inspections from the project team, including documentation reviews, previews of materials and methods prior to installation, and physical inspections.</p> <p>*The NASA Online Directives Information System Library, ensures access by NASA employees and contractors to the most current documentation.</p>
6. Measures:	<p>The CAS program consists of four projects. These four projects encompass nine individual work packages. The projects and work packages will be monitored and evaluated as described in Section 5 of the Program Plan. Standard construction of facilities procedures and processes will be used to monitor and evaluate performance on the Recovery Act Program work for Cross-Agency Support: Institutional Investments. Schedule, cost and quality performance will be measured on each project.</p> <p>The original priorities for these individual projects were to be determined through competition and prioritization among other 2010/2011 Program Construction of Facility projects. It is estimated that Recovery Act funds have accelerated the implementation of these projects by one year or more.</p>
Measure Text	Percent Schedule Growth (PSG) will measure the percentage complete for each of the four projects vs. the progress identified on the construction schedule.
Measure Type	Output
Measure Frequency	Monthly
Direction of Measure	+
Units of Measure	Percent
Explanation of Measure	This measure is calculated using $PSG = \text{Percent complete (projected)} - \text{Percent complete (actual)}$ -- where Percent complete projected is based on the contractor-submitted construction schedule. That schedule encompasses the total number of days allotted in the contract and starts upon Notice to Proceed.
Year	2009 and 2010
Original Program Target	N/A
Revised Full Program Target	Start in FY 2009
Target (incremental change in performance)	Approximately 1 year or more acceleration, from when NASA would have been able to apply funds

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Actual	
Goal Lead	Director, Office of Program and Institutional Integration, Office of the Administrator
Measure Text	Quality Performance is measured on a monthly basis based upon the number of Deficiency Reports contained within the Daily Quality Control Reports in a monthly period.
Measure Type	Output
Measure Frequency	Monthly
Direction of Measure	+
Units of Measure	Percent
Explanation of Measure	Quality will be measured by conformance with contract requirements through quality assurance inspections. Quality performance will be expressed as a ratio of the number of deficiencies noted through inspections over the total number of reports filed for the month.
Year	2009 and 2010
Original Program Target	N/A
Revised Full Program Target	Start in FY 2009
Target (incremental change in performance)	
Actual	
Goal Lead (Name)	Director, Office of Program and Institutional Integration, Office of the Administrator
Measure Text	Variance from the planned cumulative obligations for the NASA Cross Agency Support Institutional Investments Program.
Measure Type	Output
Measure Frequency	Quarterly
Direction of Measure (+/-)	+
Unit of Measure	Percent
Explanation of Measure	<p>A key aspect of the American Recovery and Reinvestment Act, is to assure the timely obligation of funds to the intended beneficiaries.</p> <p>NASA plans to make every effort to assure this happens on the plan that it has put forward, which has been designed to also maintain a prudent use of taxpayer funds, and provide key research and development program deliverables to the benefit of the public. An obligation of funds means a binding agreement is made with NASA's contractors and grantees that will result in outlays (or a payment for the</p>

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	<p>services or goods they provided), immediately or in the future. NASA will measure its progress toward the planned obligations to-date, on a quarterly basis.</p> <p>NASA's baseline obligation plan (when available) is posted at www.nasa.gov/Recovery/.</p>
Year	2009, 2010
Original Program Target	10
Revised Full Program Target	10
Target (incremental change in performance)	0
Actual	
Goal Lead (Name)	Director, Office of Program and Institutional Integration, Office of the Administrator
Measure Text	Variance from the planned cumulative outlays for the NASA Cross Agency Support Institutional Investments Program.
Measure Type	Output
Measure Frequency	Quarterly
Direction of Measure	+
Unit of Measure	Percent
Explanation of Measure	<p>A key aspect of the American Recovery and Reinvestment Act, is to assure the timely outlay of funds to the intended beneficiaries. NASA plans to make every effort to assure this happens on the plan that it has put forward, which has been designed to also maintain a prudent use of taxpayer funds, and provide key research and development program deliverables to the benefit of the public. An outlay of funds means a payment that fulfills an obligation and is the measure of Government spending. This is a payment for the services or goods the contractor or grantee provided. NASA will measure its progress toward the planned outlays to-date, on a quarterly basis.</p> <p>NASA's baseline outlay plan (when available) is posted at www.nasa.gov/Recovery/.</p>
Year	2009, 2010
Original Program Target	10
Revised Full Program Target	10
Target (incremental change in performance)	0

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Actual	
Goal Lead	Director, Office of Program and Institutional Integration, Office of the Administrator
7. Transparency and Accountability:	
Description of the program's collection of grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner	<p>NASA currently utilizes multiple methods to assure transparency and accountability, and will apply these standard processes and procedures to activities supported by Recovery Act funds. The principle of transparency is applied to program and fund allocation planning methods, and in reporting, both internal and external to the Agency, of progress toward the resultant plans. NASA requires accountability at all levels of management and from all of its cost-sharing and non-cost sharing partners, contractors, and grantees for the timely delivery and quality of products.</p> <p>As explained in detail in the Monitoring and Evaluation Section of this Program Plan, NASA will employ multiple methods of review and evaluation of progress toward the goals of this Program Plan. These reviews will assure that funds are being utilized as intended and are delivering on their committed objectives. Managers at all levels will be held accountable both via review of their progress and individual performance plans. At NASA, all employee performance plans for Federal managers include elements tied to the program plans for which they are responsible.</p> <p>Project specific milestones and invoices will be monitored to evaluate project risk. Contractors are held accountable for the timely delivery, completion and quality of products. Contractor and government accounting systems are audited periodically to ensure compliance with government standards. NASA cooperates with the Government Accountability Office and the NASA Office of Inspector General through various engagements and audits that monitor specific issues that could impact NASA missions and programs.</p> <p>To assure transparency and accountability to the public and its key stakeholders, NASA will post its current plans, and outline any revisions to previous versions on the Agency Recovery Act website. Information will be available on key events, the status of on-going activities, outcomes of Inspector General Audits and the accomplishment of and performance toward, annual and long-term Recovery Program goals. Web links will be provided, where applicable to posted solicitations, awards, and grantee performance, among other relevant information. For this and other important information on NASA implementation of the Recovery Act, see http://www.nasa.gov/recovery/.</p>
8. Federal Infrastructure Investments:	
Description of Agency plans to spend funds effectively to comply with energy efficiency	NASA uses best practices of sustainable design, maintainable design, building commissioning, and safety and security are incorporated, to the maximum extent possible, into the planning and execution of facility projects.

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<p>and green building requirements</p>	<p>NASA Facility Project Managers ensure project designs take into account the energy demands, intended use, occupancy, operations, plug loads, and design to earn the ENERGY STAR targets for new construction and major renovation where applicable. ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy to help save money and protect the environment through energy efficient products and practices (http://www.energystar.gov/). NASA Facility Project Managers are also responsible for ensuring compliance with Executive Order (EO) 13423, Strengthening Federal Environmental, Energy, and Transportation Management.</p> <p>For major renovations, NASA is aiming to reduce the energy cost budget by 20 percent from pre-renovations 2003 baseline. The majority of the work for the Cross Agency Support Program consists of repairs and replacements to roofs. Analyses performed by an independent engineering firm on the proposed construction methods for the roofing projects, has certified that the roof construction of those buildings assessed will meet the energy reduction goals of Energy Policy Act of 2005 and Executive Order 13423, and the requirements set by ASHREA 90.1-2004. The assessments projected energy reductions.</p> <p>NASA has adopted the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) as its performance measure for sustainable development (http://www.usgbc.org). LEED provides a structure for identifying and implementing practical and measurable green building design, construction, and operations. It is NASA policy that all new construction and major building renovation projects meet the minimum LEED Silver rating.</p>
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