Johnson Space Center (JSC)

Agency Introduction: The FY 2012 budget request for NASA is $18.7 billion, annualized amount under the Continuing Resolution ending on March 4, 2011. The NASA Authorization Act of 2010 has provided a clear direction for NASA, the FY 2010 enacted level.

Highlights of JSC's FY 2012 activities: The FY 2012 budget proposes $4,988 million in spending at JSC.

- $3,268 million for Space Operations including support for operations and maintenance of the International Space Station (ISS), including supporting utilization in the areas of human research, technology development and demonstration, and other space operations activities supporting future exploration.
- $1,119 million towards Exploration to develop the Multi-Purpose Crew Vehicle to carry and sustain humans beyond low-Earth orbit; to perform research and technology development for future human missions beyond Earth orbit while reducing risk and lifecycle cost: and lead the Human Research Program in furthering research that enables humans to live and work safely in space.
- $54 million in Space Technology for project elements aligned with the core competencies of the Center in human-robotic systems, next-generation life support and autonomous landing, the Johnson Innovation Fund, and disbursement of select Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) awards.
- $25 million for support to Science, including planetary sample curation and planetary research,
- $9 million to further NASA's Science, Technology, Engineering, and Mathematics (STEM) education efforts
- $513 million for Institutional requirements for the Center's operations in support of its mission requirements. This funding includes: $472 million for Cross-Agency Support; $41 million for Construction and Environmental Compliance Restoration for minor revitalization and construction projects to repair and modernize center infrastructure to reduce risk of mission disruption due to facility failures. Also includes continuing the modification of Vacuum Chamber A to prepare for testing the James Webb Space telescope.

NASA Johnson Space Center (JSC) is located in Houston, Texas, with a major facility, White Sands Test Facility, in Las Cruces, New Mexico. The Center is a leader in complex program and project management; systems engineering of spacecraft, including design, development, and testing of components; technology development and demonstration. JSC also maintains expertise in human spaceflight operations and training, human health, environmental monitoring, astromaterials analysis and astromaterials curation. In addition, JSC has an expansive array of collaborations and partnerships with industry, academia and the international community as a result of their principal role in management of the International Space Station operations and maintenance.

JSC will continue to be responsible for operation and maintenance of the Space Station, exploration-related technology development and demonstrations, and management of the operational cargo resupply contracts for the program. JSC is also responsible for development of the Multi-Purpose Crew Vehicle, the new spacecraft supporting human exploration beyond low Earth orbit; the Human Research Program, which performs research and technology development of next-generation systems that support humans in space; and the closeout of the Space Shuttle program.

Based on its technical strengths, JSC will lead the automated landing and hazard avoidance technology, human-robotic systems, and next generation life support project elements within Space Technology. JSC

will also implement the Innovation Fund, continue to support SBIR/STTR and support the Office of the Chief Technologist's Partnerships Innovation and Commercial Space and Strategic Integration activities.

JSC's breadth of technical experience and multiple strategic alliances will enable the Center to support advancements for the Commercial Crew Development Program. JSC will also be a major contributor to the Advanced Exploration Systems program to conduct future human missions beyond low Earth orbit, and contribute to technology advancements for robotic and human spaceflight.

Economic Impact:

NASA Johnson FY 2012 budget:	$4,988 million
NASA Johnson FY 2012 civil servant workforce (FTE estimate)	3,225
NASA Center Contracts/Grants Obligated (FY 2010)	$5,906 million

(Obligation data from the Federal Procurement Data System)

Current impact statement(s) to state, region:

In FY 2010 about $4B of JSC's annual budget was obligated to businesses performing work in Texas resulting in over 42,000 jobs. Nearly $119 million went to small businesses working in Texas. Nearly $14.5 million of JSC funding in FY 2010 was obligated on grants, contracts and agreements with non-profit organizations in Texas.

Johnson Space Center is continuing its role as an innovation catalyst in U.S. economic competitiveness through numerous partnering activities with business, other government agencies, universities and other national institutions. During the past five years, JSC has documented 936 new technologies which resulted in over 50 patents issued to JSC and JSC industry partners. During this same period, JSC has collaborated on more than 75 technology partnerships, executed 18 patent licenses and awarded 282 Small Business Innovative Research (SBIR) contracts. JSC has also supported eight Rice Business Plan Competition awards to stimulate both business and innovation. JSC technology transfer accomplishments have created sustainable, clean technologies and applications in biotechnology, robotics, wireless sensor technologies, and commercial space capabilities such as inflatable habitat and advanced ion propulsion.