Agency Introduction: The FY 2012 budget request for NASA is $18.7 billion, the FY 2010 enacted level. The NASA Authorization Act of 2010 has provided a clear direction for NASA, and the skilled workforce at NASA Centers is critical to the success of the Act’s important objectives.

The NASA Glenn Research Center (GRC) is located in Cleveland, Ohio. Glenn works in partnership with other Centers, U.S. industry, universities, and other Government institutions to develop critical systems technologies and capabilities that address National aerospace priorities. Distinguished by its unique blend of aeronautics, space flight, and project management expertise and experience, the Center’s work focuses on technological advances in: air-breathing propulsion; advanced communications; in-space propulsion and cryogenic fluids management; power, energy storage and conversion; materials and structures for extreme environments; and physical sciences and biomedical technologies in space. Its research, technology, and capability development efforts are vital to advancing exploration of our solar system and beyond while maintaining global leadership in aeronautics.

Aligned with the Center’s technical strengths, Glenn will apply its human space flight engineering and technical capabilities to the development of the Space Launch System and the Multi Purpose Crew Vehicle. Glenn will lead the Solar Electric Propulsion and Cryogenic Propellant Transfer and Storage Technology Demonstration Missions – the first two Exploration-specific missions. Glenn will also lead the

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Highlights of GRC’s FY 2012 activities: The FY 2012 budget proposes $ 809 million in spending at GRC.

- $216 million in Space Technology for strategically-guided projects aligned with the Center core competencies of space power, in-space propulsion, nanotechnology and manufacturing, the Glenn Innovation Fund, disbursement of select SBIR/STTR awards and program funds for the Space Technology Research Grants Level 2 program office which GRC manages.
- $144 million for Aeronautics Research to support contributions to NextGen, aviation safety, and environmentally responsible aviation.
- $100 million towards Exploration to support propulsion research for the Space Launch System, environmental qualification on the Multi-Purpose Crew Vehicle, and some EVA and advanced life support systems work in Exploration Research and Development.
- $47 million in Space Operations biological and physical research for the International Space Station, completion and launch of the Communications, Navigation, and Networking reconfigurable Test Bed (CoNNeCT) project in early 2012.
- $32 million in Science research and technology, including radioisotope power systems and solar electric propulsion.
- $12 million to further NASA’s Science, Technology, Engineering, and Mathematics (STEM) education efforts.
- $259 million for Institutional requirements includes: $230 million for Cross-Agency Support; $29 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.
In-Space Propulsion, Space Power Generation and Storage, and the Nuclear Systems ETD project elements. Glenn will manage the Nanotechnology and Manufacturing Innovation CSTD project elements, the Glenn Innovation Fund, and continue to support the Office of the Chief Technologist’s Partnerships Innovation and Commercial Space and Strategic Integration activities.

Glenn will serve as the Level 2 Program Office for the Space Technology Research Grants project which includes both early-stage innovation awards and the Space Technology Graduate Fellowships. Glenn will further NASA’s commitment to science, technology, engineering, and mathematics (STEM) education through the Space Technology Graduate Fellowships which will train the next generation of aerospace engineers and scientists by funding NASA-related graduate student research performed on campus during the academic year and research performed at a NASA Center during the summer months, gaining hands-on experience.

Economic Impact:

NASA Glenn FY 2012 budget: $809 million

NASA Glenn FY 2012 civil servant workforce (FTE estimate) 1,652

NASA Center Contracts/Grants Obligated (FY 2010) $501 million

(Obligation data from the Federal Procurement Data System)

Current impact statement(s) to state, region

NASA Glenn is a significant asset for the state of Ohio and the region. The Center’s employees are part of a knowledge-intensive labor force with unique skills on the cutting edge of science, leading technologies, and manufacturing that serve as a regional magnet for innovative industrial and medical applications. Besides generating an additional $102 million in local, state, and federal taxes, the Center’s budget continues to leverage its significant value-added impacts for the state, resulting in: $1,350 million in sales output for Ohio; over 8,200 jobs in Ohio; an increase of $495 million in household earnings for Ohio; and $8 million in awards to Ohio academic institutions.

Over the past five years, GRC reported over 800 new technologies and successfully completed over 600 Space Act Agreements with companies, government agencies, and universities around the nation. These efforts spanned not just aeronautics and space interests but also energy, medicine, security, fire and emergency response (e.g., new technologies that aided the Haiti earthquake responders). During this same time period, GRC established over 300 innovation research contracts with small businesses, including 77 in the State of Ohio. These joint ventures resulted in the winning of over 15 R&D100 awards, often called the “Oscars of Innovation”.

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