Jacobs Space Exploration Group (JSEG)

Midwest Aerospace Small Business Industry Day

JoAnn Belt Jacobs Space Exploration Group NASA Marshall Space Flight Center May 8, 2018





- Premier global consulting, design, engineering, construction, operations & maintenance and technical services firm
- We provide innovative solutions for a more connected, sustainable world
- Global network of 74,000 employees in more than 400 locations across 40+ countries
- Recently acquired CH2M



- Organized by Lines of Business
 - Aerospace, Technology, Environmental, and Nuclear
 - Energy, Chemicals and Resources
 - Buildings, Infrastructure, and Advanced Facilities
- Headquartered in Dallas, TX
- Committed to Safety, Innovation, and Sustainable Solutions



- Jacobs Space Exploration Group (JSEG)
 - Supporting NASA Marshall Space Flight Center (MSFC) continuously since 1989
 - Recipient of 2017 Small Business Administration Dwight
 D. Eisenhower Award for Excellence for Small Business
 Engagement
 - Awarded the MSFC Engineering Services and Science Capability Augmentation (ESSCA) contract; operations began December 1, 2017





JSEG KEY MISSION AREAS

Space Launch System Program

- Design & development of new heavy lift vehicle
- Systems engineering & integration
- Flight software, testing & integration
- Design, analysis, modeling & simulation, test
- Operation of Systems Integration Lab
- Insight into prime contractor activities

International Space Station

- Environmental Control & Life Support System (ECLSS) sustaining engineering, spares, flight anomaly resolution, software
- Material Science Research Rack operations

Earth & Space Science

- Gamma-ray Burst Monitor instrument operations center support
- James Webb Space Telescope primary mirror segment qualification testing
- Space environments & weather
- IXPE Imaging X-ray Polarimeter Explorer









EXAMPLES OF JSEG WORK

- Mechanical & electrical design services
- Systems engineering & integration
- Structures & dynamics
- Electrical engineering & avionics systems development
- Payload development & integration
- Materials engineering & manufacturing
- Propulsion system research & development



Gamma Ray Burst



Additive Manufacturing



24-inch Rocket Motor Test



Thermal Protection System Spray Booth

Examples of JSEG Work



SLS Solid Rocket Motor Tests



Engine Section Transporter for SLS Structural Test Article



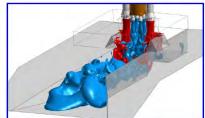
J-2X Injector Test Firing



ISS ECLSS Bosch Test Stand Development



SLS Weld Tensile Tests in MMTF



Fluids Modeling for SLS Environments



Tips for Success

- Get to know us and the services we provide
- Know who our customers are
- Learn what is important to the prime
 - Excellent cost control
 - Proven past performance
 - Robust financial management system
 - Flexibility and responsiveness

