

MEDALS (Multi-Divisional Engineering, Design, Analysis, Lab-wide Support) Program

Scope Description: The Jet Propulsion Laboratory (JPL) is conducting market research to find small businesses with experience in one or more of the following listed items. JPL seeks small business concerns, not staff augmentation firms, with extensive experience in one or more of the following listed items to meet the below scope requirements and minimum/mandatory qualifications.

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| --- | --- | --- |
| **Preliminary Requirements:** | **Yes:** | **No:** |
| NAICS Code: 541715 – Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology) |  |  |
| SBA Size Standard: 1,000 Employees |  |  |

Minimum/Mandatory Quals: Experience and capabilities in one or more of the following listed items.

In the chart below, type an “X” for each of the areas applicable to your capabilities and experience.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Scope Tasks – Past Performance Identifying/Providing:** |  **Yes** |  **No** |
| 1. | Providing System Engineering Support: System requirements development; Interface development, tracking and documentation; System documentation development; Verification & Validation (V&V) Support including test support, test data analysis and test documentation; Mechanical and Electrical System Integration and Test support; Electrical systems engineering analysis support. |  |  |
| 2. | Providing Electronics Design and Performance Analysis: Circuit design, Field Programmable Gate Array (FPGA) logic/circuit configuration and design, including associated firmware and hybrid electronics assembly; performance analysis (includes reliability analysis), electrical stress analysis, failure modes and effects analysis, and worst-case analysis. |  |  |
| 3. | Providing Electronic Packaging Engineering: RF, high voltage and hybrid microelectronics packaging; printed wiring board design and printed circuit board fabrication; electronic chassis design; electronics assembly; electronic assembly design; thermal and structural analysis of electronic packages. |  |  |
| 4. | Providing Mechanical Hardware Design and Engineering: Structure, deployment mechanisms and mechanical devices development; mechanical hardware test development and planning, test execution and/or support. |  |  |
| 5.  | Providing Structural Analysis: Finite element modeling, stress, loads, and dynamics analysis; structural test development and planning, structural test execution and/or support. |  |  |
| 6. | Providing Thermal, Fluids and Cryogenic Systems Engineering: Thermal hardware design and development; S/C Systems thermal analysis; Aerodynamic, aero-thermodynamics and computational fluid dynamics analysis. |  |  |
| 7. | Providing Propulsion Systems Engineering: Propulsion system design; component sizing and procurement support; integration and test support. |  |  |
| 8. | Providing Cable/Harness Engineering: Harness design, fabrication and test support. |  |  |
| 9. | Providing Materials and Materials Processes Engineering: Material review, analysis, test and technical documentation support. |  |  |
| 10. | Providing Contamination Control Engineering: Contamination control management and contamination control analysis support. |  |  |
| 11. | Providing Optical Systems Design and Analysis: Optical design, analysis, ray trace, and prescription development. |  |  |
| 12. | Providing Opto-Mechanical Design and Development: Optical bench structure, optical component, filter wheel and focus mechanism design, fabrication, assembly and test.  |  |  |
| 13. | Providing RF/Microwave Engineering: Design, assembly, test, and performance analysis. |  |  |
| 14. | Providing Guidance Systems Engineering: Guidance system design, analysis and simulation; component sizing and procurement specification support; integration and test support. |  |  |
| 15. | Providing Control Systems Engineering: Control system design, analysis and simulation; component sizing and procurement support; integration and test support. |  |  |
| 16. | Providing Fabrication and Assemble: Build capability for flight and non-flight hardware; composite structures for spacecraft and instrument assemblies.  |  |  |
| 17. | Government approved accounting system  |  |  |
| 18.  | Cognizant governmental agency reviewing indirect billing rates  |  |  |
| 19. | Past performance with NASA/JPL/DoD/Large Aerospace company. |  |  |

Please give us 2-3 examples of your relevant past performance in the format below. Feel free to use Microsoft Word, PowerPoint, or PDF format.

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| **Past Performance Summary Format** |
| **Contract Name:**  |
| **Business Size:**  |
| **Socio-Economic Status:** SB [ ]  SDB [ ]  WOSB [ ]  VOSB [ ]  SDVOSB [ ]  HUBZone [ ]  HBCU/MSI [ ]  |
| **Issuing Agency:**  | **Contract#:** |  |
| **Contract $ Value:** | **Period of Perf:** |  |
| **Non-Flight/Flight Hardware/ or Both:**  | **Tier 1 (Prime) /Tier 2/ Tier 3?** |  |
| **Summarized Scope of Work – Provide Technical Details Here** |
|   |
| **Requirements (Check if applies)** |
| 1. Providing System Engineering Support: System requirements development; Interface development, tracking and documentation; System documentation development; Verification & Validation (V&V) Support including test support, test data analysis and test documentation; Mechanical and Electrical System Integration and Test support; Electrical systems engineering analysis support. | [ ]  | 11. Providing Optical Systems Design and Analysis: Optical design, analysis, ray trace, and prescription development. | [ ]  |
| 2. Providing Electronics Design and Performance Analysis: Circuit design, Field Programmable Gate Array (FPGA) logic/circuit configuration and design, including associated firmware and hybrid electronics assembly; performance analysis (includes reliability analysis), electrical stress analysis, failure modes and effects analysis, and worst-case analysis. | [ ]  | 12. Providing Opto-Mechanical Design and Development: Optical bench structure, optical component, filter wheel and focus mechanism design, fabrication, assembly and test. | [ ]  |
| 3. Providing Electronic Packaging Engineering: RF, high voltage and hybrid microelectronics packaging; printed wiring board design and printed circuit board fabrication; electronic chassis design; electronics assembly; electronic assembly design; thermal and structural analysis of electronic packages. | [ ]  | 13. Providing RF/Microwave Engineering: Design, assembly, test, and performance analysis. | [ ]  |
| 4. Providing Mechanical Hardware Design and Engineering: Structure, deployment mechanisms and mechanical devices development; mechanical hardware test development and planning, test execution and/or support. | [ ]  | 14. Providing Guidance Systems Engineering: Guidance system design, analysis and simulation; component sizing and procurement specification support; integration and test support. | [ ]  |
| 5. Providing Structural Analysis: Finite element modeling, stress, loads, and dynamics analysis; structural test development and planning, structural test execution and/or support. | [ ]  | 15. Providing Control Systems Engineering: Control system design, analysis and simulation; component sizing and procurement support; integration and test support. | [ ]  |
| 6. Providing Thermal, Fluids and Cryogenic Systems Engineering: Thermal hardware design and development; S/C Systems thermal analysis; Aerodynamic, aero-thermodynamics and computational fluid dynamics analysis. | [ ]  | 16. Providing Fabrication and Assemble: Build capability for flight and non-flight hardware; composite structures for spacecraft and instrument assemblies. | [ ]  |
| 7. Providing Propulsion Systems Engineering: Propulsion system design; component sizing and procurement support; integration and test support. | [ ]  | 17. Government approved accounting system  | [ ]  |
| 8. Providing Cable/Harness Engineering: Harness design, fabrication and test support. | [ ]  | 18. Cognizant Governmental Agency reviewing indirect billing rates | [ ]  |
| 9. Providing Materials and Materials Processes Engineering: Material review, analysis, test and technical documentation support. | [ ]  | 19. Past performance with NASA/JPL/DoD/Large Aerospace company. | [ ]  |
| 10. Providing Contamination Control Engineering: Contamination control management and contamination control analysis support. | [ ]  | 20. N/A | [ ]  |

Please send to smallbusiness.programsoffice@jpl.nasa.gov Capabilities statements are also welcomed. The Small Business Programs Office will contact you to ask questions or request further information.

DISCLAIMER: There is no commitment or guarantee on the part of JPL to move forward with a Request for Information (RFI) or Request for Proposal (RFP) at this time.