

**Mechanical Engineering Support & Assistance (MESA)**

Scope Description: The current Jet Propulsion Laboratory (JPL) Multi-Divisional Engineering, Design, and Analysis Lab-wide Support (MEDALS) subcontract which provides a broad set of engineering services will expire at the end of the 2025 calendar year. To continue to provide mechanical engineering services, JPL is reviewing options to identify **Small Businesses and/or Small Business Joint Ventures or Teams led by a Small Business** with experience performing the below scope tasks.

The Subcontractor shall have the capability to provide support for flight and non-flight projects in the following mechanical engineering disciplines:

* Systems engineering
* Design, analysis, fabrication, and test
	+ Structures (metallic and composite)
	+ Mechanisms
	+ Thermal
	+ Opto-mechanical
	+ Mechanical Ground Support Equipment
	+ Cable / harness
* Materials and Processes
* Integration and test

JPL is a Federally Funded Research and Development Center (FFRDC) managed by Caltech University in support of the National Aeronautics and Space Administration (NASA).

NAICS Code: **541715 –** Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)

SBA Size Standard: 1,000 Employees

|  |
| --- |
| **Company Information** |
| **Company Name** |  |
| **Address** |  |
| **Point of Contact** |  |
| **Email** |  |
| **CAGE/UEI** |  |
| **Socioeconomic Classifications (Check all that apply)** | [ ]  SB [ ]  SDB [ ]  WOSB [ ]  VOSB  | [ ]  SBA Certified SDVOSB [ ]  SBA Certified HUBZone [ ]  HBCU/MSI  |

In the charts below, type an “X” for each of the areas applicable to your capabilities and experience.Please provide supporting evidence for all “Yes” answers in below Past Performance tables.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Certifications** | **Yes** | **No** |
| 1. | Are you a small business under the 541715 NAICS Code Size Standard? |  |  |

|  | **Scope Tasks**  | **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; System Integration and Test support |  |  |
| 2. | Providing Mechanical Hardware Design and Engineering: Structures, deployment mechanisms and mechanical devices; mechanical test hardware development and planning, test execution and support |  |  |
| 3. | Providing Structural Analysis: Finite element modeling, stress, loads, and dynamics analysis; structural test development and planning, structural test execution and/or support |  |  |
| 4. | 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 |  |  |
| 5. | Providing Cable/Harness Engineering: Harness design, fabrication and test support |  |  |
| 6. | Providing Materials and Materials Processes Engineering: Material review, analysis, test and technical documentation support |  |  |
| 7. | Providing Optical Systems Design and Analysis: Optical design, analysis, ray trace, and prescription development |  |  |
| 8. | Providing Opto-Mechanical Design and Development: optical bench structure, optical component, filter wheel and focus mechanism design, fabrication, assembly, and test. |  |  |
| 9 | Computer software: licenses and capability in software for each discipline listed above (Examples: NX for mechanical design, NX Nastran for structural analysis, Thermal desktop for thermal) |  |  |
| 10. | Providing Fabrication and Assembly: Capability for flight and non-flight hardware fabrication and assembly; metal and composite structures for spacecraft and instrument assemblies |  |  |
| 11. | In-house capability in all defined engineering disciplines defined above (if no, provide list of capabilities) |  |  |
| 12. | Demonstrated capability and experience in managing large and small business lower-tier subcontractors |  |  |
| 13. | Facility located within a radius of 150 miles of JPL |  |  |
| 14. | AS 9100 Quality Assurance system  |  |  |
| 15. | Government approved accounting system – ability to execute cost type efforts |  |  |
| 16. | Past performance / experience with JPL, NASA, DoD, DoE, or NOAA |  |  |
| 17. | Prime contractor facility and personnel cleared for TOP SECRET/SCI work |  |  |

|  |
| --- |
| **[Optional – Attach or enter Capabilities Statement for areas outside those identified above]** |
|  |

Please give us 2-3 or more examples of your relevant past performance in the format below. Feel free to use Microsoft Word, PowerPoint, or PDF format, as separate attachments. Under “Scope Tasks that Apply,” please refer to the above Scope Tasks in the second table. List all applicable scope tasks that apply to your past performance separated by comma (i.e. 2,4,6,8).

|  |
| --- |
| **Past Performance**  |
| **Contract Name:**  |
| **Issuing Agency:**  | **Contract #:** |  |
| **Contract $ Value:** | **Period of Perf:** |  |
| **Tier 1 (Prime) /Tier 2/ Tier 3?:** |
| **Summarized Scope of Work – Provide Technical Details Here** |
|  |
| **Scope Tasks that Apply (1-17)** |  |

|  |
| --- |
| **Past Performance**  |
| **Contract Name:**  |
| **Issuing Agency:**  | **Contract #:** |  |
| **Contract $ Value:** | **Period of Perf:** |  |
| **Tier 1 (Prime) /Tier 2/ Tier 3?:** |
| **Summarized Scope of Work – Provide Technical Details Here** |
|   |
| **Scope Tasks that Apply (1-17)** |  |

Please include **“MESA Capabilities”** in the subject line of your email to smallbusiness.programsoffice@jpl.nasa.gov. The Small Business Programs Office may 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.**