

REQUEST FOR INFORMATION (RFI)
Maneuver Thrust Innovative Technologies
N00014-16-RFI-0004

This notice constitutes a Request for Information (RFI) for the purpose of determining market capability of Small Business sources. This RFI is for planning purposes only and shall not be construed as a request for proposals, solicitation, or commitment on the part of the Government to issue any future solicitation. The Government will not reimburse any costs associated with the development and submission of materials in response to this request.

The purpose of this announcement is to determine whether or not there are any Small Business Concerns capable of providing the required services described below. Interested parties should submit capability statements in accordance with the instructions provided below. Interested parties are also required to indicate their small business type (i.e., 8(a)) and any additional type they may hold (i.e., Small Disadvantaged Business (SDB), Small Business Development Program, Women-Owned Small Business, Historically Underutilized Business Zone (HuBZone), Veteran-Owned Small Business (VOSB), and Service-Disabled Veteran-Owned Small Business (SDVOSB)).

Capability statements shall not exceed ten (10) pages in length and must be submitted electronically no later than 2:00 PM Eastern Daylight Time 08 February 2016.

The Incumbent contractor for this effort is Hodges Transportation under ONR contract N00014-14-D-0108. The period of performance of the IDIQ included a twelve (12) month base period and four (4) twelve (12) month option periods.

1.0 BACKGROUND

The Office of Naval Research, Code 30, Maneuver Thrust ("The Sponsor") is exploring breakthrough and innovative technology in the areas of Mobility, Survivability, and Autonomy. The Contractor shall have extensive background in these areas including support to the requirements development process and amphibious combat vehicle communities.

2.0 OVERVIEW

The following sample topical areas are envisioned for basic research, applied research, and advanced ground vehicle technology development & integration in support of The Sponsor.

3.0 Mobility

The Contractor shall conduct technology analysis, surveys, engineering calculations, modeling & simulation, and build and test technology demonstrator(s), including advanced technology insertion evaluations for combat and tactical vehicles for both wheeled and tracked vehicles. Technology demonstrator(s) can evaluate the effectiveness of meeting the Thrust goals through the usage of advanced suspension and powertrain designs, waste heat recovery, and/or modularity.

Particular areas of interest are:

- Energy efficiency and fuel economy
- Sea and riverine mobility
- Power generation and advanced battery technologies and applications in military vehicles
- Vehicle safety and stability
- Amphibious Vehicle design
- Exploration into common chassis architectures and infrastructures for Modularity concepts
- Vehicle Suspension technologies
- Evaluation and analysis of new technologies and concept vehicles
- Evaluation through simulation and testing
- Other system and subsystem testing and evaluation

3.1 Survivability

The Contractor shall conduct technology analysis, surveys, engineering calculations, modeling & simulation, and build and test technology demonstrator(s), including advanced technology insertion evaluations for combat and tactical vehicles for both wheeled and tracked vehicles. The Contractor shall perform trade studies, analysis of alternatives, and parametric evaluations of survivability attributes for existing and new technology applications to improve the survivability of USMC ground vehicles.

Particular areas of interest are:

- Blast and ballistic testing, modeling, simulation, and analysis including blast from underwater mines
- Armor system evaluations
- Active Protection and Blast diversion technologies
- Tradeoff analysis of the effects of survivability on mobility

3.2 Autonomy

The Contractor shall provide technical support for the design, development, and testing of autonomous vehicle technologies in the following and other related areas:

- Autonomous vehicle testing and evaluation including terrain traversability analyses
- Terrain/obstacle recognition and suspension technologies for path negotiation
- Modeling and simulation (hardware in the loop)
- Energy efficiency and onboard power requirements and management
- Sensing technologies evaluations
- Sensor and platform integration, test and evaluation
- Robotic systems development and application

- Network architectures to support vehicle designs
- Wireless topologies and networks
- Terrain traversability analysis

TASK I –ENGINEERING STUDIES AND CONCEPT DEVELOPMENT

The Contractor shall execute engineering studies and build and test technology demonstrator(s), including advanced technology insertion evaluations for combat and tactical vehicles for both wheeled, tracked, and amphibious vehicles, as directed by the Government in support of ONR efforts. These studies can include, but are not necessarily limited to:

- a. Conduct technical studies to validate or refine technical parameters.
- b. Conduct trade studies on automotive technologies for existing or emerging vehicle systems.
- c. Conduct dynamic computer simulations using the Advanced Dynamics Analysis of Mechanical Systems (ADAMS) modeling software and others as directed.
- d. Conduct requirements analysis for new vehicle capabilities.
- e. Develop concepts and strategies for integration of new vehicle technologies.

TASK 2 - ENGINEERING TECHNICAL SUPPORT

The Contractor shall execute engineering studies as directed by the Government in support of ONR efforts. These studies can include, but are not limited to:

- a. Provide technical background and analysis on current and developing applicable technologies.
- b. Provide technical background and analysis on current and developing applicable industry standards.
- c. Provide technical information on tactical vehicle protection technologies.
- d. Provide technical information on tactical vehicle mobility issues.
- e. Provide comments and/or engineering analysis on scoping or bounding technical parameters.
- f. Review of technical documentation.
- g. Provide ground mobility, survivability, and automotive technology Subject Matter Expertise (SME) support for ONR study groups and meetings as requested.
- h. Provide ground mobility, survivability, and automotive technology technical briefings and point papers.
- i. Attend meetings and various requirements conferences as directed.
- j. Provide comments and rationale on achieving technical parameter feasibility.
- k. Review and comment on past test efforts for determining technical parameters.

TASK 3 - SYSTEM TEST AND EVALUATION

The Contractor shall develop test plans and methodology based on existing standards and procedures as part of the technology assessment process. This includes development of detailed test procedures, identification of equipment, instrumentation, personnel requirements, test courses requirements, and definition of operational use duty cycles. Testing and evaluation includes duty cycles/mission profile and performance requirements development, performance testing (as per SAE, FMVSS, DOT, ASTM, NAVSEA, FMCSR, MIL-STD, and ISO), and other engineering measurements and analyses. The test and evaluation shall be representative of mission scenarios encountered by the Marine Corps in worldwide deployment.

Vehicle testing may include, but is not limited to:

- a. Ground Vehicle testing
- b. Weapons Testing
- c. Vehicle Dynamics
- d. Performance/Mobility
- e. Survivability
- f. Reliability, Availability, Maintainability, and Durability (RAM-D)
- g. Acceleration and Braking
- h. Transportability
- i. Corrosion/Environmental
- j. Fording/Deep Water Swimming
- k. Characteristics (examples: Center of Gravity, weights)
- l. Federal Motor Vehicle Safety Standards (FMVSS) Testing
- m. Rollover and Stability Tests
- n. Accelerated Life / Durability
- o. Virtual Proving Ground

4.0 Content of Capability

The content of the capability statements should include the following information.

Business Summary Page: The business summary page should specifically state the services that your organization can provide.

Use short sentences or bulletized statements to:

- Describe your organization's demonstrated ability and experience, supported by recent (5 years) past performance, to operate and maintain computer networks;

- Describe your organization's demonstrated ability and experience operating, maintaining and troubleshooting wired and wireless Local Area Networks (LANs) and Wide Area Networks (WANs) with worldwide connectivity supporting video, voice and data services;
- Describe your organization's demonstrated ability and experience with the installation and configuration of switches and routers;
- Describe your organization's demonstrated ability and experience monitoring networks including the use of electronic monitoring tools to monitor network traffic and device performance with Microsoft System Center, Microsoft System Center Configuration Manger (SCCM) and System Center Operations Manager (SCOM);
- Describe you organization's demonstrated ability and experience operating an Information Assurance Program as specified by SECNAV M5239.2;
- Describe you organization's demonstrated ability and experience developing certification and accreditation documentation in accordance with DOD Information Assurance Certification and Accreditation Process (DIACAP) as specified in DODINST 8510.01;
- Describe you organization's demonstrated ability and experience configuring, operating and maintaining Host Based Security System (HBSS), McAfee Intrusion Detection System/Intrusion Prevention System (IDS/IPS), Assured Compliance Assessment Solution (ACAS) and NESSUS scanner;
- Describe you organization's demonstrated ability and experience creating schedules for installation of security patches and maintain all reporting requirements in Navy Online Compliance Reporting System (OCRS);
- Describe your organization's demonstrated knowledge of data storage technology such as Storage Area Networks (SAN), Network Attached Storage (NAS), Solid State Drives and Redundant Array of Independent Disks (RAID);
- Describe your organization's demonstrated knowledge and experience using Site Core Web content services;
- Describe your organization's demonstrated experience managing: data storage, actively monitoring data space usage and performing backups using Backup Exec, Snap Vault and NDMP, disaster recovery NetApp Snap Mirror;
- Describe your organization's demonstrated experience managing ITIL Help Desk including Incident Management, Change Management and Asset Management disciplines;

- Describe your organizations demonstrated experience using Remedy software to manage 500 service tickets per month and the ability to resolve 85% of tier I requests on within 4 hours;
- Describe your organization’s demonstrated ability and experience with Oracle databases and applications, Oracle Internet Directory (OID), SQL databases;
- Describe your organization’s demonstrated ability and experience using Agile programming techniques.
- Describe your organization’s demonstrated ability and experience skills developing, implementing, maintaining .Net, Java, Open Text Livelink, Share Point 2010, SQL and Oracle programs and applications.
- Describe your organization’s demonstrated ability and experience migrating older versions of software applications to newer versions or updating capabilities such as Oracle forms to newer versions.
- List of Customers: Provide a list of at least three (3) of your key customers along with dates of performance, past, and present. Customer names are sufficient.

5.0 Instructions for Submission of Capability Statements

Capability statements shall not exceed ten (10) pages in length (excluding Past Performance inputs) and must be submitted electronically no later than 2:00 PM Eastern Daylight Time 08 February 2016.

Capability statements should include the following:

- 1) State whether or not your company has a Defense Contract Audit Agency (DCAA) approved Estimating, Purchasing and Accounting System. If not, please explain.
- 2) Provide five (5) Past Performance evaluations; The Past Performance shall demonstrate the Small Businesses ability to perform all identified capabilities and requirements.

In order to maximize efficiency and minimize the time of the evaluation of the capability statement(s), it is required that all Offerors submit their capability statement in accordance with the format and content specified. Your electronic submission shall be prepared so that it meets the following format requirements:

- 8.5 x 11 inch paper
- Double spaced typed lines
- No graphics or pictures
- 1 inch margins
- 12-point Times New Roman font in text
- No hyperlinks
- Microsoft Word or Adobe Acrobat software
- All files named with the file extension “doc” or “PDF”

