

Solicitation Number N00014-04-R-0014: System Dynamics Readiness Modeling Demonstration

The Statement of Work (SOW), order information, proposal submission requirements, and evaluation information are set forth below. Responses are due no later than 2:00 PM Eastern Standard Time (EST) on 14 June 2004.

1.0 INTRODUCTION

With the Chief of Naval Operations' plan to overhaul maintenance, training, and deployment programs to quicken the Navy's response to National Command Authority requirements, the ways operational readiness has been measured must be re-assessed. The Chief of Naval Research (CNR) has a requirement for developing a dynamic readiness and capability modeling methodology by primary mission areas, that will also be consistent with the new defense readiness reporting system (DRRS), for use in identifying readiness and capability improvements that could be achieved through appropriate science and technology (S&T).

2.0 BACKGROUND

The CNR manages and directs S&T programs critical to the current and future operational effectiveness of the Navy and Marine Corps. The CNR must base an understanding of S&T needs on an evaluation of the Fleet's operational readiness and operational performance, specifically on a careful and quantified identification of the shortfalls in both – readiness and performance capabilities. Operational readiness and performance analysis can provide fleet commanders, CNR and S&T program managers with critical insight for rationally identifying, developing, transitioning, integrating, and exploiting advanced technologies to significantly enhance fleet readiness and performance. With the advent of a new defense readiness reporting system (DRRS) from the Office of Secretary of Defense (OSD), there is an urgent need for readiness capability models that can provide joint force commanders with an accurate assessment of a unit's capability to perform specific Joint Mission Essential Task List (JMETL) requirements now and in the future. This assessment methodology must have credible analytical underpinnings to allow for proper force selection, and to calculate a realistic time to get ready to perform the mission and time-associated costs.

3.0 REQUIREMENTS

The Contractor shall conduct a proof of concept demonstration of the feasibility and potential benefits of using Systems Dynamics Readiness Modeling. The Contractor shall perform the following tasks:

- Task 1: The Contractor shall conduct a proof of concept demonstration of the feasibility and potential of using Systems Dynamics Readiness Modeling to model readiness, as measured by operational performance.
- Task 2: The Contractor shall develop a system dynamics readiness model for a selected primary mission area in consultation with the ONR Operations Analysis Program Office.
- Task 3: The Contractor shall conduct an experiment to compare Systems Dynamics Readiness Modeling with linear regression-based readiness estimating models
- Task 4: The Contractor will provide a formal written report (final report) that describes the results of the experiment as well as lessons learned and recommendations.

4.0 DELIVERABLES

The Contractor shall provide the following deliverables:

- ❑ *3 bi-monthly status reports* – These reports shall include tasks assigned/performed and accomplishments with hours expended. Contractor format is acceptable.
- ❑ *Technical Documentation of the Model* – The Contractor shall provide technical documentation of the model as required.
- ❑ *Final Report* – The Final Report shall identify results of the experiment, lessons learned, and recommendations for ways ahead.

5.0 LEVEL OF EFFORT REQUIREMENTS/LABOR CATEGORY

(a) The estimated level of effort for the performance of Statement of Work is 1 person for approximately 900 hours.

(b) The labor category listed below is provided for illustrative purposes. Specific personnel/contractor qualifications are detailed in paragraphs 7.0 and 8.0 respectively.

NOTE:

<u>Category</u>	<u>Hours</u>
Senior Operations Analyst	900 Hours

The above labor category and hours are provided as the Government's best estimate of the work to be performed. The offeror may propose the same level of effort (hours and labor category) or a different level of effort based on its own labor classification system and unique approach to satisfying the Government's requirement. To the extent that the level of effort proposed is different than the Government's estimate, the offeror's technical proposal should clearly specify the hours and labor categories proposed for each task(s) in the statement of work.

6.0 TRAVEL AND/OR ODC COSTS

Moderate travel is anticipated. Typical destination includes San Diego CA for research and one trip to Washington. Travel costs will be reimbursed at cost plus G&A (No fee will be applied to travel costs). Travel is estimated at \$2,000 (including G&A). Direct costs associated with the Contractor's travel should not exceed the applicable rates found in the Joint Travel Regulations (JTR).

All travel arrangements for contractor employees will be accomplished through the contractor's office. Travel arrangements under the contractor's responsibility include: clearance requests, hotel accommodations, travel orders, and visa/passport requirements, unless otherwise stated by the Government sponsor.

Note: If the Offeror proposes an amount different than the stated Not-to-Exceed amount within this section, it will automatically be adjusted to the stated amount since it already includes G&A.

7.0 PERSONNEL REQUIREMENTS

The personnel assigned to this effort must have at least a Bachelors degree in a technical field. It is preferred that the senior positions should be assigned to personnel with a Masters degree in engineering, mathematics, computer science or related area and have extensive experience in systems analysis and modeling.

8.0 CONTRACTOR/PERSONNEL QUALIFICATIONS

To perform the tasks specified in paragraph 3.0, the Contractor shall demonstrate competencies and expertise in the following areas:

- ❑ In-depth experience, expertise and knowledge of performance oriented readiness and capability assessments of U.S. Pacific and Atlantic Fleets and their units.
- ❑ In-depth experience, expertise and knowledge of system dynamics modeling.
- ❑ In-depth experience, expertise and knowledge of utilizing operational modeling in Navy fleet-level performance oriented readiness and capability assessments.
- ❑ Detailed experience-based knowledge of key Navy mission areas as defined by the Naval Mission Essential Task List (NMETL), especially, Anti-Mine Warfare (AMW): Anti Submarine Warfare (ASW) and Strike Warfare (STW)
- ❑ Intimate familiarity with existing Navy readiness reporting and capability reporting data bases.
- ❑ In-depth experience, expertise and knowledge in capturing function level data identified through operational modeling analysis, integrating these data into mission performance estimates and determining relevant warfare functional subtasks/events to capture unit-level data at all available/appropriate opportunities.
- ❑ Mathematical and statistical skills necessary to perform original research on the problems posed by the fragmented and incomplete data samples to be expected to result from the fleet data collection.

9.0 SPECIAL REQUIREMENTS

Review and handling of classified material up to and including SECRET is anticipated.

Security/Safeguarding Information - A Contract Security Classification Specification (DD Form 254) will be included with the task order. The DD Form 254 will specify the requirement for access up to the Secret level.

- (a) Clearance - All proposed personnel should have security clearances at the Secret level at the time of proposal submission. It is the responsibility of the Contractor to have facility clearances and storage clearances to a maximum of Secret. The Contractor is responsible for providing staff with active clearances to the level required. It is also the responsibility of the Contractor to obtain any security badges, building access passes, etc., that may be required for entrance to Government facilities.
- (b) Privacy Act - All contractor personnel assigned to this task will have access to information that may be subject to the Privacy Act of 1974. The Contractor is required to ensure the proper safeguarding of such information to prevent unauthorized release.

10.0 PERIOD OF PERFORMANCE

The period of performance will be from the date of award through six months thereafter.

11.0 PLACE OF PERFORMANCE

Work will be performed at contractor's site. Contractor will require access to Navy facilities during the research phase of the effort.

12.0 ORDER TYPE

Offerors shall propose a Time and Materials (T&M) order under this GSA solicitation.

13.0 PROPOSAL REQUIREMENTS

The Offeror's proposal should be divided into two sections: (1) Technical and (2) cost.

- 13.1 *Technical Proposal*: The length of the technical section shall be no more than 15 pages, exclusive of resumes. There is no page limit on the resumes. The proposal should be written and organized so as to be compatible with the Requirements, company's organization and accounting structure, and proposed costs. The proposal should contain information sufficient to evaluate in accordance with the evaluation factors stated in Section 15.0 below.
- 13.2 *Cost Proposal*: There is no page limit to this section. The cost section must provide for a T&M proposal. A cost breakdown should be provided that reflects a contract line item numbering (CLIN) for the proposed labor category, hours, fully loaded labor rates and total costs and a separate CLIN for the Not-to-Exceed Travel Costs specified in Section 6.0. If the Offerer proposes a different Not-to-Exceed amount for Travel, it will automatically be adjusted to the amount specified in Section 6.0. A copy of the Offeror's GSA Schedule must be included.

14.0 EVALUATION CRITERIA

Proposals will be evaluated using the following factors, in descending order of importance:

1. Conformance with required contractor qualifications
2. Technical approach and Management Plan
3. Proposed personnel
4. Past performance
5. Corporate facilities; and
6. Cost Control

Factors 1-5 are equally weighted. These five factors are substantially more important than factor 6, cost control. Although cost is less important than all the technical factors combined, it will not be ignored. Its importance will increase with the degree of equality of the task order proposals in relation to the other factors on which the selection is to be based, or when the cost is so significantly high as to diminish the value of the technical superiority to the Government.

The Government will award an order to the responsible offeror that represents the best value to the Government based upon the evaluation factors stated above. The Government reserves the right to award to other than the lowest priced offer.

15.0 PROPOSAL SUBMISSION

The due date for receipt of proposals for this effort is no later than 2:00 PM Eastern Standard Time on Monday, 14 June 2004. Proposals shall be submitted to the Contract Specialist by one of the following methods:

- (1) Faxed to Toni Cristinzio at (703) 696-0066
- (2) Emailed to Toni_Cristinzio@onr.navy.mil or cristit@onr.navy.mil
- (3) Mailed or hand deliver three copies to:

Office of Naval Research
Attn: Toni Cristinzio, ONR 0251
Ballston Centre Tower One, Room 720
800 North Quincy Street
Arlington, VA 22217-5660

16.0 SUBMISSION OF QUESTIONS

Any questions regarding this solicitation must be provided in writing to Ms. Toni Cristinzio, ONR 0251 via E-mail at Toni_Cristinzio@onr.navy.mil or faxed to (703) 696-0066. Questions submitted less than 48 hours prior to the due date for the receipt of proposals may not be answered and the due date for receipt of proposals will not be extended.

