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SECTION B Supplies or Services and Prices

ITEM NO 0001 SUPPLIES/SERVICES

QUANTITY 1 UNIT Lot UNIT PRICE \$88,750.00 MAX AMOUNT

\$88,750.00

Academic & Research Support Services

CPFF - The Contractor shall provide support to the Joint Non-Lethal Weapons Directorate in accordance with the Contract and as specified by the attached Task Description entitled:

"A Technical Assessment of the 81mm NL Mortar Munition (81NLMM)"

ACCOUNTING AND APPROPRIATION DATA

AA:

1721319M4MX 250 00802 0 067443 2D C2319A

00002RCR2BC6

AMOUNT:

\$88,750.00

Document Number M9545002RCR2BC6

MCRDT&E Project (C2319)

INVOICES:

Invoices shall be submitted in accordance with Section I of the basic contract.

DELIVERIES OR PERFORMANCE:

The period of performance shall be in accordance with the attached Task Description.

CUSTOMER'S POINT OF CONTACT (Government Use Only)

All customer (requiring activity) questions regarding performance of this contract/order, including delivery status/delivery acceleration, shall be addressed directly to the Government designated point of contact. Sandra E. Walker, Contracts Department Code 891 at 229-639-6771 or FAX 229-639-6793.

THE MARINE CORPS RESEARCH UNIVERSITY

DATE PREPARED: 19 September 2001

APPLIED RESEARCH LABORATORY/THE PENNSYLVANIA STATE UNIVERSITY TASK DESCRIPTION

TYPE OF TA	ask	5. SPONSOR TECHNICAL REPRESENTATIVE (Name, Code, Agency, and Address)	8. MCRU/PSU TECHNICAL REPRESENTATIVE (Name and Address)
X Term/	Severable	De Maria I. Communicati	N.C. Niebalas
Tem/	Non-Severable	Dr. Mark J. Grussendorf Joint Non-Lethal Weapons Directorate (JNLWD)	N.C. Nicholas Applied Research Laboratory
Territorion-Severable		3097 Range Road	The Pennsylvania State University
Compl	letion	Quantico, VA 22134-5100	P.O. Box 30
months Afte	COMPLETION DATE REceipt of Order (ARC	.	State College, PA 16804-0030 MCRU POC: R. R. Madrid
House:	\$88,750		
ubcontract	0	6. SPONSOR TELEPHONE (Commercial and DSN) 703-784-2646 x243	9. ARL/PSU TELEPHONE 814-865-5694
TAL:	\$88,750	100-101-2010 A210	
aff Hours	433	7. SPONSOR INTERNET ADDRESS GrussendorfMJ@JNLWD.USMC.MIL	ho, ARL/PSU INTERNET ADDRESS ncn3@psu.edu

12. TASK OBJECTIVE

1.TITLE

The objectives of the 81NLMM Assessment are to:

- Determine the <u>technical feasibility</u> of the developmental 81 Non-Lethal Mortar Munition prototype(s) to successfully exploit the effects of its associated non-lethal munition on targets at tactical ranges.
- Determine the <u>potential operational utility</u> of the delivering non-lethal effects against personnel targets and their feasibility to satisfy the broad "counter-personnel" requirements presented in Joint Concept for Non-Lethal Weapons.

13. DESCRIPTION OF WORK (If additional space is required use separate sheet)

A panel of subject matter experts (SMEs) will be convened who have specific technical or operational expertise in one or several of the following areas:

SME(s) with infantry weapon/mortar design experience and expertise. The SMEs are required to assess the existing
design and planned refinements and to comment on the technical risks associated with the fabrication and testing of the
prototype weapon and munition.

•	SME(s) with developmental or operational expe	rience familiar with the applications and non-lethal effects of blunt impact quired to provide comment on the scientific basis for projected target
	effects and potential technical issues involved v	vith such effects.
•	tactical Ni. weapons, to include 81mm and belo lethal muntions/technologies. The SME is requiplanned, and/or executed as part of the overall SMEs with developmental or operational experience 81mm and below. The SME is required procedures required to employ the OICW again.	mience familiar with the generalized human effects issues associated with w, and a familiarization with human/bioeffect testing methodology of non-ired to provide critical and expert comment on the human effects testing 81mm NL Mortar Munition program plan ence familiar with the operating characteristics of tactical NL weapons, to it to provide critical and expert comment on the likely tactics, techniques, ast likely targets given current or hypothetical rules of engagement. than war and in urban environments is preferred.
A Co	ntract Security Classification Specification (DD Form 254) is	required for Task Descriptions involving CLASSIFIED work.
	·	Contract/Delivery Order Number: M67004-99-D-0037/ 0051
		Attachment: #1
	ARL/PSU Designator	Page 1 Of 4

MCRU ARL/PSU TASK DESCRIPTION (Continued)

13. DESCRIPTION OF WORK (Continued)

SME(s) with experience in both general and specific non-lethal weapons countermeasures.

The following criteria will be used to select the SMEs:

- The SMEs must be capable of providing comment on the reasonableness of developing the following implementation
 areas: technical design feasibility, cost and schedule risk,
- SMEs will be from academia, government (military and non-military), or law enforcement,
- SMEs will possess appropriate clearances.

The panel will meet for two-three days in the northern New Jersey area. The location is recommended in order to provide the panel with an opportunity to individually observe the current state-of-the-art prototype and its associated development environment and to witness a demonstration of the technology. The panel will review:

- The 81mm NL Mortar Munition Program Plan to include:
 - Baseline and advanced optimization of effects
 - Any computational models used
 - The experimentation/test (developmental and operational) plans
 - Sequencing of design, development, test and evaluations
 - Contractor/subcontractor qualification
- Current (preliminary) end-to-end weapon/munition design, to include:
 - NL munition design model feasibility
 - Potential/planned upgrades to existing designs
 - Technical and operational feasibility to deliver NL effects
 - Operational and employment concepts
- Bio-effects measurement and analysis approach

The first two days of the Assessment will feature technical briefings on the various aspects of the program as well as the Program Plan, followed by questions and discussion for the Panel. Additionally, any field/lab demonstrations of the weapon and munition will be conducted. The third day will invoive internal deliberations and technical review. Minutes will be taken and the work recorded for incorporation into a final written report due no later than 150 days after the panel meets.

The final report will provide the following:

- a brief review of the current threat assessment (to include consideration of target variability and vulnerability) as provided by the sponsor/service.
- a brief review of the mission area analysis efforts,
- a brief assessment of the fundamental science and technical underpinnings of the system being explored and judgment of the reasonableness of the selected technology,
- a review and assessment of the overall experimental plan to include test objectives, analysis requirements, a
 discussion on each specific experimental issue to be examined, comments upon how appropriate each demonstration
 (past and planned) is in relation to the stated objectives and analysis requirements, and a summary of the measures of
 effectiveness identified and obtained for each issue,
- an assessment of the feasibility of achieving the stated overall system effectiveness and performance parameters within the stated demonstration schedule,
- an assessment of the feasibility of executing stated missions using this technology employing reasonable techniques, tactics, and procedures in relation to target variability/vulnerability.
- An assessment of the ease and viability of countermeasures and deployment options

	Contract/Delivery Order Number: M67004-99-D-0037/ 005]
• .	Attachment: #1
10272	

MCRU ÁRLÍPSU TASK DESCRIPTION (Conti	nued)

14	LIST DELIVERABLE PRODUCTS	AND/OR REPORTS, (Give Scheduk	e)

- Provide a candidate list of SMEs to the JNLWD for selection as 81NLMM Assessment Panel members--90 days ARO.
- Prepare panelists by providing them with background information (provided by the JNLWD/ARDEC) at least 5 days before
 the meeting.
- Provide draft agenda to JNLWD at least 5 days prior to meeting.
- Convene Panel at approved facility.
- Coordinate/facilitate the activities of the panel.
- Record meeting minutes and collect findings/conclusions.
- Facilitate drafting of final report in coordination with JNLWD
- Provide final report no later than 150 days after the panel meets.

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SPECIAL REQUIREMENTS (GFP, Special Test Equipme	ent. Foreian Travel, Special Delivery Ter	ms, Other)
N/A	,	, ,
N/A		
SUBCONTRACTS (If additional space is required, use s	aparate sheet)	***************************************
<u>Contractor</u> N/A	Scope of Work	Estimated Cost
ENDORSEMENTS	9/2.1.	011/ 0/5-2011
Iniversity Laboratory (MCRU Program Manager)		Telephone
	9/01/01 Date Ech. 01/07/02	703 784 2646 Ext 24
July July July July July July July July		703 784 2646 Ext 24 Telephone
ask Sponsor Organization an		Telephone 703 784 2646 5x7 24 Telephone Telephone
TALWO / Trask Sponsor Organization and	ech. 0.7 01/07/02 d Code / Date	Telephone Telephone
Task Sponsor Organization and	есн. 0.7 01/07/02 de Code Date	Telephone COTR Internet Address
University Laboratory (MCRU Program Manager) Task Sponsor Organization and Contracting Officer's Technical Representative	есн. 0.7 01/07/02 de Code Date	Telephone Telephone

TITLE (From Page 1 of Task Description)

10272
ARL/PSU Designator
(For ARL/PSU Use)

A Technical Assessment of the 81mm NL Mortar Munition (81NLMM)

49	SPONSOR REPRESENTATIONS AND CERTIFICATIONS	

- a. I have analyzed other sources for accomplishment of this task, but because of the need to (1) maintain a long-term strategic relationship, (2) maintain continuity and currency in special fields of expertise, (3) maintain objectivity and a high degree of competency in staff and work, and (4) provide the ability to respond to emerging needs. I have chosen ARL/PSU to perform this task. Any subcontracting required in performance of this task is for supplies or services necessary to accomplish such work.
- b. The task clearly and adequately defines the work to be performed. Including applicable milestones, deliverables, and reporting requirements. I shall promptly notify the Contract Officer of any material changes in the scope of a Task that materially affects milestones, deliverables or reporting requirements. Such modifications shall be reflected in a written Task Description Revision. Any Task direction within the scope of this Task Description must also be issued in writing by the task sponsor and should be sent directly to ARL/PSU.
- c. The estimated direct labor staff hours and labor classifications, the estimated amounts for technical services and for direct subcontracts, and the estimated travel costs, as presented in the cost estimate for this Task Description have been reviewed and assessed as fair and reasonable, and where possible, by comparison to costs incurred for similar or related Tasks performed for this office by ARL/PSU and/or other contractors. The program sponsor acknowledges that when this Task is negotiated with the contracting agency, some elements of cost such as rates or material may change from the time of task submittal to the program sponsor, and that these changes may effect the number of staff hours estimated for delivery.
- d. A current Contract Security Classification Specification (DD Form 254) has been provided to MARCORMATCOM if the proposed work is classified. (See Block 11).

e. The work identified in this Task must carry a Defense Priorities and Allocations System (DPAS) rating in accordance

with FAR 11.6. This rating will be specified on subcontracts and purchase orders issued by ARL/PSU under Prime Contract. The work under this Task carries a DPAS rating of DO-A7 unless another rating and program identification symbol is identified here: f. If Special Test Equipment (STE) is identified in this task, (print or type name), a technical evaluator qualified to understand the criteria for classification of property, its composition, and its use, has determined that the property listed in Block 15 as STE is properly classified in accordance with FAR 45.101. g. I have discussed this work with my controller's office, which concurs that this work is not (check only one appropriate) classified as Consulting Services (CS) as defined by SECNAVINST 4200.31C, or as defined by appropriate Instructions applicable to my organization. (name and telephone number) of the controller's office of my organization has been supplied with a copy of this task and concurs with this CS/non-CS determination, and has authority to make such determinations. All funding supplied for this task will be appropriate for the CS determination. 19. I CERTIFY THAT THE ABOVE INFORMATION IS ACCURATE AND COMPLETE Telephone Date Sponsor Signature G. P. Fenton, Colonel USMC THIS CERTIFICATION AND ENDORSEMENT MUST BE FORWARDED WITH THE ORIGINAL OF THE TASK DESCRIPTION TO MARCORMATCOM, WITH A COPY TO ARL/PSU

Contract/Delivery Order Number: M67004-99-D-0037/ 0051

Attachment:

#1