PURCHASE ORDER

GOVERNMENT ARSENAL

Supplier: COMPANHIA BRASILEIRA DE CARTUCHOS
Address: Av. Humberto de Campos, 3220-09426-900
Ribeirão Pires, São Paulo, Brazil
TIN: 250-726-383-000
Represented by: Firepower Defense Contractors, Inc.
Unit C-305 Lopez Building, Session Road, Baguio City

P. O. No.: 2018-08-191
Date: August 8, 2018
Mode of Procurement: Public Bidding

Gentlemen:
Please furnish this Office the following articles subject to the terms and conditions contained herein:

<table>
<thead>
<tr>
<th>Place of Delivery:</th>
<th>Delivery Term:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Arsenal, Lamao, Limay, Bataan</td>
<td>DAP Camp General Antonio Luna, Lamao, Limay, Bataan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Delivery:</th>
<th>Payment Term:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within one hundred eighty (180) calendar days from the receipt of Notice to Proceed (NTP)</td>
<td>Lamao, Limay, Bataan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock/ Property No.</th>
<th>Unit</th>
<th>Description</th>
<th>Qty</th>
<th>Unit Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>rds</td>
<td></td>
<td>7.62mm Tracer Cartridge</td>
<td>870,000</td>
<td>P 48.55</td>
<td>P 42,238,500.00</td>
</tr>
</tbody>
</table>

A. CARTRIDGE - The cartridge shall comply with all requirements specified in drawing number GCT 402 and with all requirements specified in applicable specifications and standards.

B. WORKMANSHIP:

The cartridge shall be in accordance with the following:

B.1. Metal Defects - The metal parts of the cartridge shall be free of folds, wrinkles, deep draw scratches, scaly metal, dents, cracks, splits, perforations, burrs and foreign matter.

The cleaning method used shall not be injurious to any part nor shall the parts be contaminated by any cleaning agent.

B.2. Foreign Matter - The cartridge shall be free of corrosion, stains, discolorations, dirt, and smears of lacquer.

C. BALLISTIC REQUIREMENTS:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>Test Barrel Method</th>
<th>EPVAT Method (Electro-Mechanical Piezo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>m/s</td>
<td>817 ( ^{2.9} )</td>
<td>814 ( ^{2.9} )</td>
</tr>
<tr>
<td>fps</td>
<td>2,680 ( ^{1.30} )</td>
<td>2,670 ( ^{1.30} )</td>
</tr>
<tr>
<td>m/s</td>
<td>9.75</td>
<td>9.75</td>
</tr>
<tr>
<td>fps</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

C.2. Chamber Pressure

<table>
<thead>
<tr>
<th>Copper-Crush Cylinder Test Method</th>
<th>EPVAT Method (Electro-Mechanical Piezo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg/cm²</td>
<td>3.515</td>
</tr>
<tr>
<td>psi</td>
<td>50,000</td>
</tr>
<tr>
<td>Mpa</td>
<td>345</td>
</tr>
<tr>
<td>kg/cm²</td>
<td>3.967</td>
</tr>
<tr>
<td>psi</td>
<td>55,000</td>
</tr>
<tr>
<td>Mpa</td>
<td>379</td>
</tr>
</tbody>
</table>
### C.3. Average Port Pressure

<table>
<thead>
<tr>
<th>Description</th>
<th>Copper-Crush Cylinder Test Method</th>
<th>EPVAT Method (Electro-Mechanical Piezo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>kg/cm²</td>
<td>879 ± 140</td>
<td>643 - 889</td>
</tr>
<tr>
<td>psi</td>
<td>12,500 ± 2000</td>
<td>9,150 - 12,650</td>
</tr>
<tr>
<td>Mpa</td>
<td>86.19 ± 13.79</td>
<td>63 - 87</td>
</tr>
</tbody>
</table>

### C.4. Action Time

The action time (overall primer ignition, propellant burning, plus the time taken for the bullet to exit the barrel) of the cartridge when conditioned at 70°F ± 2°F (21°C ± 1°C), shall not be greater than 4 milliseconds.

### C.5. Accuracy

The average of the mean radii of all targets of the sample cartridges, fired at 600 yards, shall not be greater than 381mm (15 inches). When accuracy testing is conducted on ranges shorter than 600 yards, the average of the mean radii of the target shall be multiplied by the applicable conversion factor given below:

<table>
<thead>
<tr>
<th>Range (yards)</th>
<th>200</th>
<th>300</th>
<th>400</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean radius, mm maximum</td>
<td>121</td>
<td>183</td>
<td>243</td>
<td>305</td>
</tr>
</tbody>
</table>

### C.6. Function and Casualty

The cartridges shall function without casualty when subjected to 70°F ± 2°F (21°C ± 1°C), 125°F ± 2°F (52°C ± 1°C) and -65°F ± 2°F (-54°C ± 1°C) storage conditions.

### C.7. Trace

When viewed at night from a line parallel to the plane of trajectory, with the line of sight perpendicular to the plane of the trajectory at each point of observation, the bullet of the tracer cartridge shall exhibit a visible trace of full luminosity from a point not greater than 91.44 meters (100 yards) from the muzzle of the weapon to a point not less than 777.24 meters (850 yards) from the muzzle. The trace shall be of a level below the full luminosity, and preferably invisible from the muzzle of the weapon to a point at least 13.72 meters (15 yards) from the muzzle.

### C.8. Bullet Integrity

The bullet of the cartridge shall not burst either in its passage through the barrel or in flight; neither shall the jacket of the bullet or any part thereof strip from the slug when the cartridge is fired.

### D. OTHER TEST

#### D.1. Waterproof

The cartridge shall not release more than one (1) bubble of air when subjected to a pressure differential of 0.527 kg/cm² (7.5 psi) for 30 sec.

#### D.2. Residual stress

The cartridge case shall not split when subjected to a one percent (1%) mercurous nitrate test solution for 15 minutes.

#### D.3. Bullet extraction

The force required to extract the bullet from the cartridge case shall not be less than 27 kg (60 pounds).

#### D.4. Point identification

Orange / Red Tip
E. For Visual and Dimensional Inspection - Sampling plan is based on ANSI / ASQ Z1.4-2003 using double sampling plan (Normal) and General Inspection Level II. The AQL for Critical, Major and Minor defects shall be 0.015%, 0.25% and 1.50% respectively.

F. Manufacturing Requirement
The cartridge shall be manufactured by a single manufacturer only within one (1) year from date of award, with the manufacturing date indicated on the packaging.


**** nothing follows ****

BASIS: Cartridge Assembly and Packaging Division

REF: PR No. 2018-05-171, Fund Transfer from Various Agencies

PURPOSE: For assembly of 7.62mm Linked Ammunition

PAYMENT TERM:
Payment of ninety-nine percent (99%) shall be made thru:
a) Modified Disbursement Scheme (MDS) Checks or Direct Payment Scheme via bank debit system through issuance of Advice to Debit Account (ADA) of Supplier (DBM Circular 2013-16 dated December 23, 2013) after delivery and acceptance at the Government Arsenal; or
b) Letter of Credit (LC) after delivery and presentation of Shipping Documents, Pre-Delivery Inspection (PDI) Report signed by the Inspection Acceptance Committee and written advice duly signed by the Director, Government Arsenal.

The remaining one percent (1%) shall be retained to cover warranty obligations, to be released after three (3) months from final acceptance or upon submission of an equivalent special bank guarantee, and for LC upon written advice of payment duly signed by the Director, Government Arsenal.

All charges for the opening of LC and / or incidental expenses thereto (i.e. bank commission, documentary stamp, tax, cable, etc.) shall be for the account of the supplier.

(Total Amount in Words) FORTY TWO MILLION TWO HUNDRED THIRTY EIGHT THOUSAND FIVE HUNDRED PESOS only

P 42,238,500.00

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed on the undelivered items.

Conforme:

MR. JERUEL G. SANCHEZ
Atty-In-Fact for CBC
Signature over Printed Name

Very truly yours,

DANIEL R. CASABAR JR
Director

Fund Cluster:
101101
Fund Available:
PHP 42,238,500.00

Date

MS. ALLEGIAH D. CARREON, CPA
Chief Accountant

ORS/BURS No.:
02-001-008-2018-006
Date of the ORS/BURS:
July 20, 2018
Amount:
PHP 42,238,500.00