

ज्ञापांक..... 563 / आपूर्ति
92-1-29-2016

पुलिस महानिदेशक का कार्यालय, बिहार, पटना।

पटना, दिनांक- 17-1-2017

सेवा में,

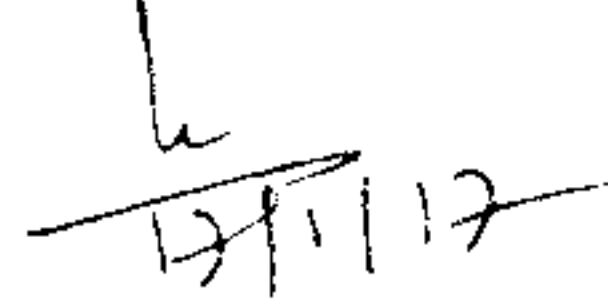
निदेशक,
सूचना एवं जनसम्पर्क विभाग,
बिहार, पटना।

विषय- निविदा आमंत्रण सूचना सं०-65/2016-17 के प्रकाशन के संबंध में।

निदेशानुसार उपर्युक्त विषय के संबंध में निविदा आमंत्रण सूचना सं०-65/2016-17 की पाँच प्रतियाँ (सी०डी० सहित) संलग्न करते हुए अनुरोध है कि इसे राज्य एवं राज्य से बाहर के प्रमुख समाचार पत्रों में (अंग्रेजी एवं हिन्दी) के अगले दो संस्करणों में प्रकाशित कराने की कृपा की जाय साथ ही पी०आर०डी० वेबसाइट पर भी प्रसारित करने की कृपा की जाय।

इस निविदा आमंत्रण सूचना का प्रकाशन किन-किन समाचार पत्रों में किया गया, इसकी सूचना देने की कृपा की जाय।

अनु०-यथोपरि।



पुलिस महानिरीक्षक के सहायक (क्यू०),
बिहार, पटना।

प्रतिलिपि:-

1. आई०टी० मैनेजर, पुलिस महानिदेशक का कार्यालय, बिहार, पटना को कृपया सूचनार्थ। कृपया इसे आज ही वेबसाइट पर अपलोड किया जाय। साथ ही Indian Trade Journal, Kolkata के अंक में प्रकाशन हेतु Government of India, the Controller of Publications, Civil Lines, Delhi : 110 054, (Tel No. 011-23812527, FAX : 011-23817846), Email Id- sk.mondal.dgcis@nic.in के पतेपर भी अनिवार्य रूप से भेजा जाय।
2. Government of India, the Controller of Publications, Civil Lines, Delhi : 110 054, (Tel No. 011-23812527, FAX : 011-23817846), Email Id- sk.mondal.dgcis@nic.in को कृपया सूचनार्थ एवं आवश्यक क्रियार्थ प्रेषित। अनुरोध है कि उक्त निविदा का प्रकाशन Indian Trade Journal, Kolkata के अंक में करने की कृपा की जाय।



पुलिस महानिरीक्षक के सहायक (क्यू०),
बिहार, पटना।

Police Headquarters, Bihar, Patna
Notice Inviting Tender No.65/2016-17

1. Name of the Department : Office of Director General of Police, Bihar, Patna.
2. Last date & time for the acceptance of the short tender : 17/02/2017, Till 11:00 AM
3. Date & time fixed for the opening of the short re-tender : 17/02/2017 At 11:30 AM
4. Place fixed for receiving & opening the tender : Office of Director General of Police, Bihar, Patna.
5. Details of Job :

S.N.	Item name	Quantity
1	Ballistic Vest (Light Weight Ceramic)	350
2	Ballistic Helmet (Light Weight Ceramic)	360
3	Bomb Supression Blanket	08
4	Bomb Trolley	09

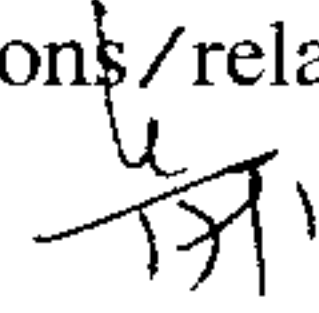
Specifications and other terms & conditions of the tender may be obtained in person from this office or may be downloaded from the website www.prdbihar.gov.in or www.biharpolice.bih.nic.in.


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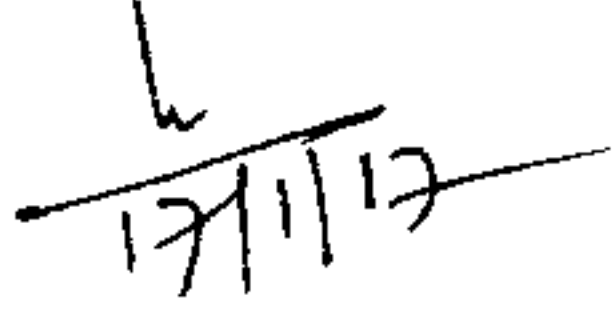
AIG (Q)
Bihar, Patna.

Terms & Conditions Of Tender No.-65/2016-17

1. Tender of the firm will be accepted only on the condition that if their tenders are approved, the firm shall get registered with the Commercial Tax Department, Bihar, before the purchase order is issued.
2. The tender should be submitted in two parts : (i) Technical Bid and (ii) Financial Bid, duly sealed in two separate envelopes super-scribed as "Technical Bid" and "Financial Bid".
3. All relevant papers/ E.M.D./certificates/specifications etc. of items should be enclosed in the Technical Bid.
4. The rates of the items shall be quoted in the Financial Bid only.
5. All charges like BST/CST/Service Tax /VAT etc. shall be clearly mentioned in the Financial Bid and the net rate (in figures and words) including all taxes and duties must also be quoted. Vague offers like indicating taxes "as applicable" will not be accepted.
6. The rates of the items shall be quoted in the Financial Bid in two parts : (i) With AMC (Annual Maintenance Contract) and (ii) Without AMC
7. There should be no cutting, over writing or correction on the rates.
8. The technical and financial bids for each item should be submitted separately in separate envelopes. The technical and financial bids for more than one items submitted together in the same envelope shall not be accepted.
9. If the financial bid is submitted in the same envelope containing the technical bid then also it shall be summarily rejected.
10. The technical and financial bids should be put in two separate sealed envelopes and the envelopes should be marked Tender No-65/2016-17 (Technical Bid) and Tender No-65/2016-17 (Financial Bid) along with the name and address of the firm. The sealed envelopes containing the technical and the financial bids should be sent in another sealed envelope which should be marked as Tender No-65/2016-17. This envelope should not bear the name and address of the firm.
11. Income Tax Returns of last three years, a photocopy of PAN of the participating firm and turn-over of any two of the previous three financial years should be submitted with the technical bid. It should be specifically mentioned whether IT return has been filed manually or electronically.
12. The turn over of the firm for the last reported financial year should be at least double the amount of the supply order which is being issued. A copy of the profit and loss Account of the firm for any two of the previous three financial years, certified by a Chartered Accountant should be submitted along with the tender. If the tenderer is authorized dealer or authorized supplier of manufacturing firm, then the certified details of the turnover of authorizing firm may be accepted. Tender specific authorization from the OEM must be submitted, but in certain cases where authorization from OEM is not required, the Technical-cum-User committee (T.U.C.) shall decide about exemption (if any) on a case-by-case basis; citing appropriate reasons for the same.
13. If there is some discount in the price of any item, it should be deducted from price itself and such discounts should not be quoted separately.
14. If the product is available on DGS & D rate contract, then a copy of the contract must be attached and pricing be done including all taxes.
15. A copy of the test report for the product issued by any established and recognized private Laboratory or by agency accredited by the Government should be attached with the technical bid. However if required, the Technical-cum-User committee (T.U.C.) can take decision regarding exemptions/relaxations (if any), citing appropriate reasons.



16. In case of Bullet Proof/Bullet Resistant items, test report of TBRL is compulsory.
17. Firms participating in this tender shall also submit duly sworn affidavit to the effect that " this firm has not been black listed/debarred by any Government or Semi Government or Private Agency and no sister concern of this firm is participating in this tender."
18. Firms participating in this tender shall also submit the self attested list of users of its equipments.
19. All items shall be received at Central Clothing Store, Patna, therefore price should be quoted FOR Central Clothing Store, Phulwari Sharif, Patna.
20. Firms will have to deposit a sum of Rs.50,000/- (Fifty Thousand) only as an earnest money deposit in the form of Bank Draft duly pledged in favour of the undersigned along with the quotations. The small scale units located in Bihar shall not be liable to deposit earnest money. Exemption from submitting E.M.D. will also be available to those who are registered with the Central Purchase Organisation/State Purchase Organisation and National Small Industries Corporation (NSIC).
21. Technical Bids will be opened on scheduled date and time in the office chamber of Police Headquarter. Representatives of the firms competing in the tender may remain present at the time of opening of the technical bid.
22. The technical bids will be opened first and placed before the Technical Committee of the Police Headquarters, Bihar. If the technical bids are found satisfactory as per tender conditions, it will be put before Central Purchase Committee of the Police Headquarters, Bihar. The firms may be required to participate in the demonstrations of the quoted product and discussions with this committee.
23. Any paper/document will not be accepted after opening the tender.
24. Successful firm will have to enter into an agreement after depositing a sum of 5% of the total value of the order as security money in the form of Bank Guarantee duly pledged in favor of undersigned.
25. The firm will be required to provide satisfactory after-sales service after the delivery of the product.
26. The firm will be required to supply all the items within the stipulated time frame as mentioned in the purchase order.
27. Payment for the delivered items will be made only after the acceptance report of the Inspection Committee of the Police Headquarters, Bihar.
28. The firm whose quotation is approved by the Central Purchase Committee of the Police Headquarters, Bihar, shall be invited to enter into an agreement with the undersigned.
29. It is expected to submit the duly filled chart attached herewith, along with the technical bid.
30. Indexing of the requisite documents must be done and submitted along with the technical bid.
31. Hands on training of the equipment must be imparted to the user group by the firm.
32. Director General of Police Bihar, Patna reserves the right to reject any or all the quotations partially or fully, without assigning any reason thereof.
33. The Quantity indicated may increase or decrease at the time of issuing purchase order.


A I G (Q)
Bihar, Police.

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QR'S/SPECIFICATION FOR BALLISTIC/BULLET PROOF JACKET(VEST)
FULL BODY PROTECTION (360°) INCLUDING UPPER
ARM/THROAT/COLLAR AND SHOULDER SYSTEM

1. Ballistic Protection. The basic Bullet proof jacket should meet NIJ Level III & IIIA according to NIJ STD 0101.06. The basic Jacket should defeat following ammunition from 10 m distance.

- a) 7.62 x 51 mm FMJ NATO M-80 or Indian ball Fired from Indian SLR Rifle
- b) 7.62 x 39 mm MSC ammunition fired from AK 47 / 56 Rifle.
- c) 9mm Para FMJ RN bullet 8.2g at $V = 436$ m/s fired from Pistols and sub machine guns such as MP-5.
- d) 5.56x45mm NATO SSI09 / INSAS
- e) Protection against Russian/Chinese Tokerev (7.62x25 mm ammunition) gun,
- f) 44 Magnum SJHP bullet 15.6 g at $V = 436$ m/sec.

2. Construction. The bullet proof jacket **should provide 360 degree all round upper torso body protection.** The system should be flexible and allow complete freedom of movement without compromising the ability to acquire and neutralize threats from any firing position including when wearing a ballistic helmet. The full body armor should have throat protector & upper arm protector as add on.

3. Flexibility. BPJ should ensure snug fit that exactly fits the body contour. It should have hard armor panel flexible enough to follow the body contour thus ensuring that it does not hinder body movement and use of arms.

4. Emergency Release. In case of emergency situation the jacket should have a special provision for instantaneous discard in one swift pull. It should be easy to open the vest in a sitting position and the jacket must split in two parts to get fast access to wounds.

5. Emergency Evacuation: The jacket must have minimum two pull out/buddy straps.

6. Wearer Comfort. The design and fitment of the BPJ should provide weight distribution over the waistline and shoulders instead of only shoulders, to enhance the wearer's comfort Self suspending Ballistic system to keep ballistic panels in place, prevent sagging and/or bunching that can expose vulnerable areas.

7. FHAH Design. The BPJ should have Flexible Harness Attachment System (FHAH) that facilitates attachment of various pouches. Multipurpose side wings to secure the vest around the (waist, to provide adjustment and allow quick break away, Offers load attaching point's for the sides of the vest and to hold the side plate pouches which should be adjustable both vertically and horizontally.

8. Field Up-Gradable Add-ons. The BPJ should have the provision to attach / detach protection armour at the Throat area, Upper Arms and these should not hinder normal

movement.

9. Ventilation and Heating/Cooling Pack. The BPJ should have provision of ventilation system for enhanced wearer comfort through use of 3-D fabric in the inner part for sweat absorption and breathability with good air circulation. The BPJ should have one cooling heating pack located at the back for use in very cold or very hot ambient conditions.

10. Height Adjustment system. BPJ should be designed to ensure proper height adjustment for the wearer. The Jacket should stay in position even when shoulder straps are off and wearer is jumping.

11. Outer Carrier. The outer carrier of BPJ should be made of heavy duty, long lasting and high abrasion resistant CORDURA or equivalent fabric that is water resistant.

12. Weight and Threat.

S/No	Component	No of Panel	Weight +/- 2%	Remarks
BASIC BULLET PROOF JACKET				
1	Front Panel	1 set	Maximum 10.0 kg	Total weight of Basic BPJ
2	Rear Panel	1 set		

ADD ON FEATURES				
1	Upper Arm	2 Nos.	Maximum 1 kg	
2	Throat	1 No	Maximum 0.5 kg	
3	Collar and shoulder system	1 set	Maximum 0.5 kg	
	Total weight of the BPJ		Maximum 12.0 kg	

ULTRA LIGHT WEIGHT INSERT PLATES				
1	Insert plate	2 Nos	1.25X2 = 2.5 kg Maximum	
	TOTAL BPJ SYSTEM WEIGHT		14.5 kg Maximum	
1	COOL PACK	1 No.	Maximum 0.4 kg	

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13. Area of Coverage

S/ No	Component	Area of coverage in Square meter		
1	Basic BPJ	Minimum 0.550 sqm	Hard Armour Panel	
2	Upper Arm [area of 2nos]	Not less than 0.035 sqm	Hard Armour Panel	
3	Throat	Not less than 0.027 sqm	Hard Armour Panel	
4	Collar with shoulder pads	Not less than 0.050 sqm	Soft armour panel	

***Note.** Negative tolerance in terms of area measurement is not permissible. Measurements will be made with the help of scaled drawings on graph paper using plain meter.

14. BP JACKET - CONSTRUCTION

- a) It should be in the form of jacket to provide protection as per level III of NIJ (0101.06). It should not restrict overall movement of the wearer.
- b) It should have provision to accommodate two HAP plates in front and back as per dimensions specified in tender documents. It should be comfortable to the wearer during operations.
- c) Adjustable at the shoulders, waist and groin with appropriate fasteners (Velcro's). An adjustable nylon belt of minimum 10cm width should be provided with double locking of Jacket with Velcro.
- d) The vendor has to declare the type of materials, number of layers and their Areal density in the technical bid of tender and the equipment supplied later on should conform to same standards.
- e) SAP should be encased in polyurethane coated materials so as to make it water proof.

15. VELCRO FASTENERS. All the clothing flaps of the jackets should have high quality velcro fasteners, so that it can be worn and taken off easily/quickly. The quality and report of Velcro including shears strength and peel strength should be as per Bureau of Indian Standards specification IS:8156-1994 (may be available in the office of Bureau of Indian Standards). Vendors will submit test reports on Velcro from any NABL accredited lab or DMSRD (MoD), Kanpur.

16. POCKET WITH FLAPS. The jacket should be provided with two external pockets in outer carrier to house two magazines of Assault Rifle/SMG in each pocket. Two pockets should also be provided to accommodate one grenade (HE 36) in each pocket. The size of each magazine is 19cm x7.6 cm x3.5 cm and size of HE 36 grenade is 110 mm x 65mm.

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17. BELT/KAMARBANDH

- a) An additional belt of nylon/polyester weaving with minimum width of 10cm should be provided around the waist to properly secure the B.P. jackets with the body of the wearer around waist, so that weight of jacket is distributed on waist/shoulders. Kamarbandh should be of same material as outer carrier with velcro.
- b) Two pouches (one each on front and rear of outer carrier) should be provided to accommodate two 305 mm x 254mm Hard Armour Plates so that jacket protects vital organs of body.
- c) Ballistic panels (SAPs & HAPs) should be removable from outer carrier.
- d) Outer carrier shall be machine washable.

18. TRAUMA PAD FOR TRAUMA ATTENUATION.

- a) Trauma pad must be provided behind the SAPs, to provide proper cushioning.
- b) It must cover uniformly up to the edges of the SAPs.
- c) Back face signature (BFS) should not exceed 25mm in plasticine block at 30 ± 2.9 degree centigrade temperature of plasticine.
- d) Drop test will be carried out as per NIJ standard 0101.06.

19. MATERIALS

- a) The outer carrier shall be made of high tenacity, heavy duty, abrasion Proof and 100% vest integrity fabric PU coated Nylon.
- b) The fabric weight should not be less than 95 gm/m².
- c) The fabric shall be treated for protection against water, fire and ultra-violet rays exposure.
- d) The fabric must be suitable to wear in the Indian conditions of heat, rain and humidity.
- e) The inner side (body side) shall also be of a similar fabric and shall be treated for moisture and water repellency.
- f) The cloth of the carrier must be pre-shrunk before stitching.

Note:-

The methods of testing criteria for measuring the properties of outer carrier shall be as per IS: 11871-1986, IS:3417-1979 (reaffirmed 1997), IS:392-1989 and IS 391-1975).

- i. Duration of flame after removal of burner maximum 5 seconds (Test Method IS11871).
- ii. Duration of flame afterglow-maximum 5 seconds (Test method ISI 1871).
- iii. Hydrostatic Head-Minimum 100 cms of water (Test Method IS 391-1975).
- iv. Water penetration should be zero (Test Method IS392-1989).
- v. Mean Ultra Violet Penetration Factor-Minimum 100 (Test Method IS 3417).

The tests reports specified will be submitted by the manufacturer from an accredited Lab.

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20. VEST FIT:

- a) The overall length of the BP jacket shall be such that there is no "ride up" while sitting.
- b) The overlapping degree of front and rear panels shall be such as to provide for maximum freedom of movement.

21. COLOUR: BLACK. The bidders will submit samples of BP Jackets of Black colour. However, before placement of bulk supply order, exact colour along with modifications required, if any, in outer carrier will be intimated.

22. LABELLING. The outer carrier and the two soft Armour panels must be labelled as per NIJ standards giving the following details.

Name of the Manufacturer:

Name of the Product:

Date of Manufacturing:

Date of Issue:

Threat level:

Size:

Serial No:

NIJ Standard:

Strike face of jacket should be clearly marked.

22. SOFT ARMOUR PANEL (SAP).

- a) SAP shall be able to withstand NIJ threat level III A In respect of the calibre & the weapon selected for trial and other parameters such as weight & velocity of the bullet in ammunition selected for trials.
- b) Shall protect both front and back torsos.
- c) Shall be made of Aramid/suitable material or better.
- d) The weight of the Aramid/suitable material, denier and type of weave shall be so balanced as to make the SAP lightweight, soft and pliable.
- e) The Areal density (minimum 5.1 kg/m²) of the panels shall be such as to provide the rated ballistic and trauma protection.
- f) No tears, rips, worn spots, discolorations, loose or torn stitching and set wrinkles on the SAP shall be allowed.
- g) The panel shall be treated with approved and durable water repellent.
- h) The SAP shall be removable from outer carrier to allow for periodic cleaning.
- i) The SAP shall be placed in tightly sealed, water repellent and PU coated heavy-duty fabric so as to make it completely waterproof.
 - (1) Hydrostatic Head-Minimum 100 cms of water (Test Method IS391-1975).
 - (2) Water penetration should be zero (Test Method IS 392-1989).

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j) It should include Soft Armour Panel (SAP) along with Trauma Pad in Front, Sides and Rear including detachable Groin Pads, Neck & Collar Pads and Upper Arm Pads as under:-

- i. **Groin Pad** : It should protect the groin in continuation with Front SAP, not impede the movement of a running soldier and be conveniently foldable when not in use. It should cover minimum 500 sq cms protected area.
- ii. **Neck & Collar Pads**: It should be specially contoured for better fit and ballistic coverage, covering minimum 500 sq cms protected area to provide all round neck protection. It should allow unrestricted neck movement.
- iii. **Upper Arm Pads** : It should protect the shoulder and upper arm and not impede the movement of shoulder seriously. It should cover area not less than 350 sq cms each.

Note - Tenderers must declare number of layers and type of material (Areal density of material!) used for fabricating Soft Armour Panel and Hard Armor Panel as per original manufacturer of the material. Raw Material Assurance Certificate (RAMC) must be given from original manufacturer in respect of material for SAP and HAP, valid for a period of six months from the closing date of tender. The vender has to declare the numbers of layers used for fabricating SAP and HAP of tender samples and they have to maintain the same in bulk supplies.

24. HARD ARMOUR PLATE (HAP)

- (a) Shall be made of high performance polyethylene fiber.
- (b) Shall provide protection against cartridge 7.62x51 mm ammunition and 7.62x39mm ammunition (mild steel core bullet) and 5.56 x45mm NATO SS 109/INSAS @ 920m/s from a distance of 10 meters in conjunction with Soft Armour Panel.
- (c) Each plate should not weight more than 1.5 kg.
- (d) Shall be of minimum size 305mm x 254mm to cover the vital parts of the body.
- (e) Curvature of the HAP should be suitable to fit the body contour and cover the sides and rib cage.
- (f) HAP shall be shielded water repellent and PU coated heavy duty fabric so as to make it completely water proof.

25. OTHER STIPULATIONS

- a) Serviceability : 10 years (HAP, SAP & trauma pad.)
- b) Guarantee : The outer carrier along with trauma padding shall be guaranteed for a period of 2 years against all manufacturing defects.
- c) Temperature : -30 °c to +50 ° c (operating temperature).
- d) Humidity : 95% at 40%C
- e) Storage : Normal Room Temp.

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26. Immunity Level:

(a) **Hard Armour Plates:** The HAPs are to be tested in conjunction with SAPs.

(i) Six bullets NATO ball (9.4g to 9.6gms) fired from 7.62mm SLR/bolt action rifle from a distance of 10 meters at zero angle of incidence.

(ii) Six bullets (mild steel core), from 7.62mm of AK rifle from a distance of 10 Mts at zero angle of incidence on separate plates.

(b) **Soft Armour Panels:** Six shots fired through 9mm Sub Machine Gun (Such as Sten Machine, MP-5, Carbine, any other variant) from a distance 5 meters with a muzzle velocity 430 ± 15 m/s and the weight of the bullet between 7.4 gm to 8.2 gm as specified in standard.

The velocities of bullets fired through weapons are given as follows:

Armour Type	Test Bullet	Reference Velocity m/s	Hits per Armor part at 0° angle of incidence	BFS* Depth Maximum	Shots per Panel
IIIA	9mm FMJ RN	430 ± 15	4+2 at 30° angle	25mm	6
III	7.62mm NATO FMJ	838 ± 15	6	25mm	6
	7.62 mm mild steel core	715 ± 15	6	25mm	6
	5.56 x 45 NATO SS 109/INSAS	920 ± 15	6	25mm	6

* BFS - Back Face Signature on Plasticine.

* Selected weapon and lot of ammunition, for which reference velocity has been once achieved, will remain the same throughout ballistic testing of all tender samples of various firms.

(All tests will be in accordance with the SOP. Any changes in the SOP will be decided by Technical Evaluation Committee).

27. Testing Criteria.

(a) Scientific inspections/ballistic trial of these BP jackets will be conducted as NIJ standard 0101.06.

(b) Groin Pad will be tested ballistically with 9mm SMG. Three evenly spaced fair hits at zero degree angle incidences shall be taken and BFS should not exceed 28 mm.

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28. Miscellaneous.

- a) The supplier/manufacturer shall provide one number of BP jackets of the order size along with HAP at their cost from the lot of every 50 numbers but minimum four numbers per lot of jacket for the purpose of the ballistic test/evaluation of the tendered specifications at the time of materializing the supply. These will be selected prior to dispatch at random in the factory premises.
- b) While submitting the samples for tender, the supplier shall mention the exact area of SAP and HAP and give the template of the jackets as per the area, so that import of raw materials of the BP jackets will be allowed accordingly.
- c) Five tender samples are required for technical evaluation from a firm.
- d) Each model of BP jacket offered by vendor should be submitted against a separate tender form.

29. Testing facilities.

Ballistic trials as per the QRs will be held at TBPL, Chandigarh or any other facility as decided by Technical Evaluation Committee.

Specifications of the Bullet Proof(Ballistic) Helmet for Ground Troops

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OPERATIONAL CHARACTERISTICS

Ergonomy: It should be possible to wear, adjust and remove the helmet with ease even with gloved hands. It should be provided with a three point chin strap with cotton chin cup.

Shape:- The helmet should adequately cover the neck and ears of the wearer and its design should be on the lines of the US Personal Armour System Ground Troops (PASGT). The shape of the helmet should facilitate the use of hand sets of in-service communication equipment. Helmet should desirably have provision to mount a display system, hands free communication equipment and fix electro-optical devices as and when required.

Surface Finish and Camouflage- The proposed helmet should be of crinkle matt finish, in the Black colour with no Holes and no Bolts on its surface.

Protection- Level: NIJ-III A; The ballistic helmet should be able to defeat 9mm KF ammunition fired from Indian 9mm Carbine from 20m. The deformation in the helmet should not exceed 13mm, the min gap necessary between the harness and inner surface of the helmet.

Climatic Condition- The helmet must withstand repeated and sustained exposure to climatic conditions as under:-

- (a) Temperature - -50°C to $+50^{\circ}\text{C}$.
- (b) Relative Humidity - upto + 80%.

Use of Optical Instruments- The design of the helmet should be such that it should not obstruct the use of binoculars (day and night)/Night Vision Device(monocular), optical sights fitted on the weapons, range finders and Artillery optical instruments like director etc.

Compatibility- The design of the helmet should preferably be compatible to wear along with respirators and chemical hoods. This may be considered as a desirable feature for subsequent improvement and development.

Comfort- The helmet should not cause any undue discomfort even after prolonged wearing by an individual for more than six to eight hours.

Ability to absorb IR Radiation- It is desirable that the helmet should be able to absorb 60 to 100 percent of IR radiations from an active IR source and should not reflect any such radiations.

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Weight - The weight of the helmet should be as under:-

- (a) Medium Size helmet - Not more than 1.20 Kgs.
- (b) Large size helmet - Not more than 1.30 Kgs.

Inner Lining/Harness- The helmet should be provided with harness which should be adjustable to head size. The minimum distance between the harness and the inner surface of the helmet should be 13mm. It should be comfortable to wear and ensure air circulation.

Chin Strap- Adjustable chin strap with three point support must be provided. The material of the chin strap should be suitable to Indian weather conditions and should be rugged enough to withstand rough handling in the field. The buckle of the chin strap should be easy to engage/disengage and its position on the cheek should not hinder aiming during firing. The material of the buckle should be harmless to skin in all types of climate temperatures.

Size- The helmet should be provided in two sizes, viz medium and large size. The circumference of the helmet should be adjustable as under:-

- (a) Medium size - 48 to 57 cms.
- (b) Large size - 58 to 62 cms.

Shelf Life- Shelf life of helmet to be minimum 10 years in field conditions.

Provision for Visor- Suitable provisions should exist in the helmet for attaching plastic visor, to provide limited protection against blast and splinters, without increase in weight of the helmet. An additional weight of upto 500 gms for the visor is acceptable. The visor is, however, required on selective basis.

OPERATION AND MAINTENANCE

Packing - The helmet should be packed individually preferably in a water proof carry bag.

User Evaluation - The approval for introduction into service of the proposal helmet will be based on the test procedures as laid down in NIJ Standard 0106.01.HP White Laboratory, UK and the standards set in this GSQR (to be tested in field conditions). However, in case, where different standards have been specified in the GSQR/NIJ/HP White Laboratory, the specifications set out in the GSQR will be considered.

Literature -Literature giving details of the equipment, functioning and handling should be provided at the time of trials. It must also give out details of maintenance requirements.


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Specification of BOMB BLANKET

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1. The Bomb blanket should offer protection against blast, thermal and fragmentation effect resulting from the detonation of explosives. The firm will have to produce certificate from a national/international accredited lab.
2. The Bomb Blanket should be made with multiple layers of suitable aramid fabric and should conform to the protection level required and then sewn into a fire retardant water repellent cover.
3. The Bomb Blanket should consist of an integral Blast containment ring to deter side fragmentation discharge and to direct the force of the blast upwards.
4. The Bomb Blanket design and material used for manufacture should permit taking X-ray of the suspected device, without being lifted.
5. The Bomb Blanket should permit effective firing of Disruptors on the suspected device without being lifted.
6. The Bomb Blanket should easily cover a suspected device of min size of 40cm x 30cm x 40cm without making any contacts.
7. The Bomb Blanket should provide easy lifting facility and should have no filling or strapping of blanket while deployment.
8. Weight of Bomb Blanket should not be more than 40 Kgs including blast containing ring.
9. The Bomb Blanket should offer protection against blast, thermal and fragmentation effect resulting out of blast effect of 2 kgs TNT equivalent explosives alongwith minimum 100 gms of nails/nuts as fragments.
10. The storage life of The Bomb Blanket should be 7 years.

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Specification of Bomb Trolley

1. The trolley should be compact and easy to tow behind Mahindra Scorpio, Bolero, TATA SUMO or equivalent vehicle which has a provision for towing hook attachment on its chassis.
2. The trolley should be 4 wheeled with suitable tyres.
3. The trolley should have suitable suspension to allow it to be towed in urban and semi rural areas.
4. The trolley should have suitable heavy duty arrangement to be towed.
5. The trolley should have a foldable ramp mechanism which can allow robotic vehicles to assist in Anti Sabotage operations and help in loading of Blast Mitigating Basket with suspect package.
6. The trolley should have extra support for when it is parked, such supports should be foldable and stowed when not required.
7. The trolley should have a ground clearance of minimum 1 ft.
8. The trolley should have suitable tail lights and arrangement for license plate display as per RTO norms.
9. Thick rubber tyres of good quality should be provided for trailer.

[Signature]
09.11.16

सुनिता चौधरी
09.11.16