

**बिहार पुलिस मुख्यालय, पटना**  
**निविदा आमंत्रण सूचना सं०-०४/१३-१४**

1. विभाग का नाम— पुलिस महानिदेशक का कार्यालय, बिहार, पटना ।
2. विज्ञापनदाता का पदनाम एवं पता— पुलिस महानिरीक्षक के सहायक (क्यू०), बिहार, पटना ।
3. निविदा प्राप्ति की तिथि एवं समय— दिनांक—३१/०७/२०१३, १४.०० बजे तक ।
4. निविदा खोलने की तिथि एवं समय— दिनांक—३१/०७/२०१३, १६.०० बजे ।
5. निविदा प्राप्ति का स्थान— पुलिस महानिदेशक का कार्यालय, बिहार, पटना के कार्यालय भवन के मुख्य द्वार पर रखी निविदा पेटी।
6. कार्य का ब्यौरा—

S.N.	Item name	Specification	Qty
1	2	3	4
1	Night Vision Goggles	Specification may be obtained from this office. or on website <a href="http://www.biharpolice.bih.nic.in">www.biharpolice.bih.nic.in</a>	50
2	Advanced Weapon Simulator- 8 Lane System	Specification may be obtained from this office. or on website <a href="http://www.biharpolice.bih.nic.in">www.biharpolice.bih.nic.in</a>	1
3	Hand Grenade Simulator	Specification may be obtained from this office. or on website <a href="http://www.biharpolice.bih.nic.in">www.biharpolice.bih.nic.in</a>	2

निविदा के नियमों, शर्तों की जानकारी के लिए अधोहस्ताक्षरी के कार्यालय में, पुलिस महानिरीक्षक के सहायक (क्यू०) बिहार, पटना के दूरभाष सं०-०६१२-२२१५२९५ पर सम्पर्क किया जा सकता है, कार्यालय के सूचना पट तथा वेबसाइट [www.prdbihar.gov.in](http://www.prdbihar.gov.in) or [www.biharpolice.bih.nic.in](http://www.biharpolice.bih.nic.in) पर देखा जा सकता है ।

ह०/—  
पुलिस महानिरीक्षक के सहायक (क्यू०),  
बिहार, पटना ।

## TERMS & CONDITIONS OF TENDER NO. 04 /2013-14

- 1-Tender of the firms situated inside /out side the State will be accepted with the condition that if their tenders are approved, the firm shall get itself registered with Commercial Tax Department, Bihar before the purchase order is issued.
- 2-The tender should be submitted in two parts, (1) Technical bid and (2) Financial bid duly sealed in two separate envelopes super scribed as technical bid and financial bid. The rates shall be quoted in the Financial bid. All charges like BST/CST/Service Tax /VAT etc. shall be clearly mentioned but net rate (in figures and words) including all taxes and duties shall be quoted. Vague offers like indicating taxes "as applicable" will be summarily rejected. There shall be no cutting, over writing or correction on the rates. All relevant papers/certificates/specifications etc. of items should be enclosed in technical bid.
- 3-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 be summarily rejected. If the financial bid is submitted in the same envelope containing the technical bid then also it shall be summarily rejected.
- 4-The technical and financial bids should be put in two separate sealed envelopes and the envelopes should be marked "Tender No. 04/2013-14" (Technical Bid) and marked "Tender No.--04/13-14" (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 an another sealed envelope which should be marked as marked " Tender No. 04/2013-14". This envelope should not bear the name and address of the firm.
- 5-Up-to-date Income Tax returns (Saral) and a photocopy of PAN of the participating firm should be submitted with the technical bid. I.T. return should have stamp and signature of the concerned department, whether filed manually or electronically.
- 6-The turn over of the firm for the 2012-13 financial year should be at least double the amount of the supply order which is being issued. A copy of the profit and loss a/c of the firm for the 2012-13 financial year certified by a Chartered Accountant should be submitted along with the tender. If the tenderer is authorized dealer and authorized supplier of manufacturing firm, then the certified details of the turnover of authorizing firm will be accepted.
- 7- If there is some discount in the price of any item, it should be deducted from price itself and should not be quoted separately.
- 8-If the product is on DGS & D rate contract then a copy of the contract be attached and pricing be done with all taxes including Bihar Sales Tax.
- 9-A copy of test report for the product issued by a competent authority with in last one year should be attached with the technical bid. In case of BP items test report of TBRL will only be accepted.
- 10-All items will be received at Central Clothing Store, Patna, therefore price should be quoted for Central Clothing Store, Phulwarisharif, Patna.
- 11-Firms will have to deposit a sum of rupees 25000/- (Twenty five thousand) only as an **earnest money in the form of postal saving passbook / NSC/Bank draft duly pledged in favour of the undersigned along with the quotations.**
- 12-Technical bids will be opened on 31/07/2013 at 16.00 PM in the office chamber of the undersigned. Representatives of the tenderers may remain present at the time of opening of the technical bid.
- 13-The technical bid will be opened first and if it is found as per tender conditions, it will be put before Central Purchase Committee. The firm may have to participate in discussions with this committee and / or be required to demonstrate the quoted product. Any paper / document will not be accepted after opening the tender.
- 14-Successful firm will have to enter into an agreement after depositing a sum of 5% of the total value of the stores as security money in the form of Postal Saving Pass Book/NSC/Bank Guarantee duly pledged in favor of undersigned.
- 15-The firm will be required to provide satisfactory after sale service.
- 16-The firm will be required to supply all the items within 90 days from the date of placing order.
- 17-Payment for the delivered items will be made after receiving OK report from the Inspection Committee.
- 18-The firm whose quotation is approved shall be issued A/T. Purchase order shall be issued only after the firm enters into an agreement with the undersigned. Terms & Conditions of the agreement shall be intimated in the A/T.
- 19-Only such manufactures/authorized dealers and authorized suppliers of manufacturing firm who fulfills the above conditions should quote for supply of items.
- 20-Updated Technology at the time of supply change in condition.
- 21-Hands on Training of the user group by the firm shall be ensured.
- 22-D.G.. of Police Bihar, Patna reserves the right to reject any or all the quotations partially or fully without assigning any reason thereof.
- 23-The Quantity indicated may increase or decrease at the time of issuing purchase order.

Sd/-  
A I G of Police (Q)  
Bihar, Police.

<b>Technical Specifications of Night Vision Goggles</b>		
1	Technology	Fully digital image processing system using Digital sensor system without any Image Intensifier (II) tube.
2	Physical Properties	Should be rugged and compact construction.
3	Mounting	To be worn like a tactical goggle, i.e. fixation to the face by an elastic strap or directly onto the helmet. Can fit under the helmet with a visor on the helmet. Should cover the eyes completely. No separate mounts required for wearing on face and on the helmet.
4	Comfort ability	Should allow a complete hand free operation and no blurred vision with normal head movements.
5	Weight	Weight of NV Goggles should not exceed 400 gms (excluding power box) with the Elastic Strap.
6	Light sealed	There should be not light produced by the goggle while wearing it enabling no detection to outside devices.
7	Field view	43 Deg +/- 2 Deg (-OEM to provide a compliance certificate-) with 1 x lens.
8	Automatic Gain Control	Should have an Automatic Gain Control (AGC) making it operable at day & night. Rapid adoption in changing light scenarios, no latency or over saturation effect.
9	Day light exposure	Should be able to operate in day and night conditions. The can be used in day light conditions without damaging the system (goggle).
10	View	High Quality Black and White view and no Green Background.
11	Resolution	63 to 67 1p/mm for the camera, i.e. 1x lens + Sensor - (OEM to provide a compliance certificate)
12	Operating Modes	Operating Mode shall be selectable: PASSIVE, i.e. without IR ACTIVE: i.e. with IR for closure ranges. (Wide angle IR)
13	Testing	To be done in a simulated real condition i.e. in presence of No lit houses, building, vehicles, trees, Lit street lamps etc.
14	Lens	Field replaceable 2 x lens to be provided.
15	Range	100 mts approx (Depending on the size of the object/ objects like group of 5-6 men, cars, jeeps, trucks, houses etc and the lens size and ambient light conditions)
16	Reliability/Life Expectancy	The operational life time of the DNVG is min. 20,000hrs. (OEM to provide a compliance certificate)
17	Operating hours of bty	>>08 hrs in passive operation (no IR)
18	Low battery indicator	Continuous Power Indicator.
19	Operating Temperature	(-) 30 deg C to + 55 deg C. (OEM to provide a compliance certificate)

### **Technical Specifications of Advance Weapon Simulator- 8 Lane System**

1	The system should be scientifically structured to take a soldier gradually to advanced levels of training. The training should be structured at following six levels.	
	a	Level I: Squad post or basic marksmanship kills.
	b	Level II: Grouping fire at short ranges.
	c	Level III: Application and classification at long ranges.
	d	Level IV: Advanced training for moving target/ pop up targets.
	e	Level V: Engagement in CGI based tactical scenarios.
	f	Level VI: Judgemental training in video based scenarios.
2	It should support all small Arms from pistol to LMG.	
3	Should have computer based tutorials for the trainees prior to firing, so that trainees become acquainted and conversant with small arms training Simulator.	
4	Should have Jungle lane shooting wherein it appears that the firer is moving through a jungle lane and targets appear along the way as in actual.	
5	Ambidextrous firing should be possible.	
6	Advanced CGI scenarios should be created wherein all the characters can walk, run, crawl, fire from various firing positions from point to point as defined by the user.	
7	User should add the effect of blasts and smoke in the computer generated scenarios (CGI) scenarios at predetermined time and specific intervals.	
8	Operational Environment:- Different types of operational environment should be provided including built up area, high rise buildings, shopping malls, historical monuments, desert area, jungle and mountainous terrain etc. These Operational Environments should be available for intergration into the system as and when required during warranty period. For conventional scenarios, highly realistic terrains should be included as, HAA, J&K North east, Punjab, Canals, Semi-desert, desert, plain and Built up area.	
9	System should be able to fire diferent weapon simultaneously at different lanes each with different ranges.	
10	a	The system shall be capable of functioning on all types of Small Arms including 5.56mm Insas Rifle, 5.56mm Insas LMG, 7.62mm SLR, 7.62mm LMG, 9mm Carbine Machine, MP9 (B&G), MP5, Colt M4, M&P 9mm Pistol, 9mm Pistol, AK-47, 9mm Auto Glock Pistol, 7.62mm Styer, Sniper Rifle.
	b	Capability to integrate any type of small arms from bolt action to automatic weapons.
	c	Weapons to be integrated should be original weapons for real training value.

	d	Capability to impart weapon handling lessons like action on stoppages, weapon cleaning drills on original weapons.
11		Different types of targets should be provided including Fig 11, Fig 12, 1 Ton vehicle, 3 Ton Vehicle, 5 Ton vehicle, Car, Jeep, Gypsy, Bus, 130 Cbt, 130 Czt, Fig 1 x 1, Fig 2 x 2, 4 x 4 Target, Friend and Foe and Bunker. In addition, user defined targets should be integrated, if required. Vehicle targets such as Light, Medium and Heavy motor vehicles should be included.
12		The system should be of four lanes and it should enable firers to fire simultaneously on different targets each at different ranges and capable of being controlled and operated by one instructor using a single console.
13		Controller should be able to assign specific number of rounds to individual lanes or to all the lanes simultaneously, with one entry.
14		Additional targets if required by user should be included. Each lane should be capable of using different weapons.
15		System should be capable of showing aiming mark at all ranges at the option of the instructor. An aimer depicting point of aim with an option to disable the aimer should be provided.
16		Horizontal and vertical graph capturing movement of barrel before firing should be provided.
17		System should be capable of enabling the user to incorporate video shots into the simulation to include scenario for patrolling, ambush, hostage rescue, VIP security and various CI OPS. The system should also have ability to add more scenarios to a minimum of 100.
18		Ranging from simple to complex, these video scenarios should be relevant to Indian security forces and to be created by the end user. Software should be provided.
19		The system should be capable of generating 3-D scenario including humans, vehicles and structures. 3-D human targets should react to firing as would be in case of real humans. The software should be provided to enable user to create own 3D scenarios.
20		System should be capable of simulating following conditions:-
	a	Different modes of sky, such as clear, sparsely clouded, densely clouded and rainy conditions.
	b	Wind velocity with direction and the resultant effect on bullets should be seen at the target.
	c	Different times of the day i.e dawn, day, dusk and night allowing instructor specify and point in day.
	d	Fog conditions with capability of depicting visibility range in meters. All the simulations should be able to be controlled by the instructor.
21		System should be capable of enabling end user to develop, modify and integrate targets. Once integrated the targets should appear in menu of the software.
22		System should be capable of depicting ranges from 5 to 2000 mtr in individual lanes or in all the lanes simultaneously.
23		The system should provide pneumatic recoil to create realistic firing experience as per each weapon being fired on the system.
24		<b>Documentation</b>
	a	The system should be able to store and display complete details of trainees including their personal details, score, date of firing and analysis.
	b	The data should be available to the instructors under separate user groups. The system should allow the users to format this data as per their requirement.
	c	Complete trainees details should be stored including their rank, score etc. Their performance over a period of time should be stored and displayed as and when required. To accommodate specific needs of the organization the format should allow customization. The following documents should be provided:- a. Software test procedure. b. Software user manual. c. Software installation procedure document. d. Software and hardware bilingual user handbook in English and Hindi (Devnagri) e. Software verification and validation and reliability document. f. Software should be upgradeable.
25		The System should be able to generate detailed reports of performance of trainees with facility to customize the same by the user. This generation of report should be both weapon and trainee specific.
26		Analysis of firing and corrective action should be suggested by software.
27		Equipment should be semi portable and should be installed and dismantled in two hours each.
28		The system should have facility to preview the range and conditions in the set-up, without starting the exercise.
29		The system should have special arrangement for earthing. A lightning conductor kit should be provided.
30		The system should have facility for weapons calibration with the provision of storing details of the calibration.
31		<b>Squad Post Training</b>
	a	The system should provide facilities of squad post training in normal & advanced modes with gradual increase in degree of complexity.
	b	Squad post training should be provided in two modes with visual feedback normal (regular target) and Advanced (moving pendulum). In normal mode the trainee has to view the Bull's eye of the target. While the trainee is on bull's eye a visual indicator should be given to the trainee. In advanced mode the trainee should continuously track a pendulum. The speed of the pendulum should be capable of being varied to change the complexity of the training. Feedback as to the percentage of time the trainee was on target should be displayed.
32		The system should provide static target for application and classification. These firing practices should include:-
	a	<b>Static Target Practice</b>
	i	Static Targets of application fire need to be provided in standard mode. Additional features in static targets should include.
	ii	Timed fire with facility to customize number of exposure and time by the user.
	iii	Exercise should be timed.
	iv	Facility to change range and firing conditions.

	v	Facility should be provided to change the special effects (tactical scenarios like clouds, fog, wind velocity, dust, smoke, night conditions etc).
	vi	Scores as per firing practices, misses, scores and percentage obtained. The scoring pattern should be customized as per the user requirement and accept additional scoring patterns if required.
	vii	Scores should be provided for inner middle outer hits, misses and the percentage of score attained. The scoring pattern should be customized to customers's needs and should be capable of for each snapshot target, uptime, downtime, number of exposures and special effects should be capable of being controlled.
	<b>b</b>	<b>Snapshot Practice Snapshot targets should be provided with the following features:-</b>
	i	For each snapshot target, uptime, downtime, number of exposures and special effects should be capable of being controlled.
	ii	Targets with rotate option should be provided wherein, if the target is hit, during the visibility phase (uptime), it should rotate.
	iii	Facilities similar to static targets like changing special effects, replaying etc should be provided.
	iv	An exercise where the targets appear at random points should be provided. In this exercise, even the instructor should not be aware in advance where the target will appear.
	v	An exercise similar to 2 (d) (iii) (ad) above should be provided where in the instructor should be able to control points of appearance of the targets.
	vi	An exercise where each track is assigned a target with different shape and colour combination should be provided. The target in this exercise should appear at random points on the screen.
	vii	An advanced snapshot exercise where each track is assigned a different coloured target should be provided. In this exercise the target should appear at random points on screen.
	<b>C</b>	<b>Moving Target. The system should provide for moving target exercises with following facilities:-</b>
	i	Instructor should be capable of controlling direction and speed of moving targets.
	ii	Provision of controlling range and firing conditions similar to those in static targets exercise should be available to the instructors.
33	<b>Replay</b>	
	a	The system should be capable of replaying records of all lanes simultaneously or individual lanes only. It should facilitate to view full trace of movement of the weapons.
	b	Should be capable of replaying all lanes simultaneously or individual lanes only. In the case of individual lanes, the replaying should be viewed in normal or zoom mode. Facility should be provided to view full trace, from the beginning of the session to the end of the session, where the movement of the weapons needs to be vidually traced, giving an opportunity of time and motion study.
	c	Replay should be provided as a short trace also. In short trace more, the point of aim and the point of impact (follow through) need to be displayed. In the case of individual lanes the replay should be viewed in normal and zoom mode. This should enable the instructor to interpret the mistakes and suggest corrective measures.
	d	Replay facility providing information on track and bullet numbers at the point of impact on the target should be provided.
	e	The user should be able to control the speed of the replay.
34	The user should be able to carry out bullet by bullet analysis.	
35	Print out of the result should included some or all of the parameters, as per the discretion of the user, with facility to preview the printout.	
36	Graphical depiction of movement of weapon before release of bullet/pressing trigger, both in horizontal and vertical plain should be available to the user.	
37	Option to facilitate rotation of targets on being hit should be available.	
38	Random appearance of targets at different ranges should be available.	
39	Facility to customize appearance of targets and their intervals at each lane should be available.	
40	The system should provide for grouping exercises with facility to analyze groups to include feed back on percentage of accuracy in holding, aiming and trigger operations. The facility to measure the group should be available both in inches and centimeters with an option to choose one.	
41	A grouping exercise which judges the grouping of bullets fired by a trainee, and provides Hold, Aim and Trigger (HAT) feedback with percentage accuracy.	
42	Annual Range Course. Software should be provided to facilitate the end user to develop and incorporate annual range courses. Annual range course once designed should appear as integrated- as a menu item- in the software.	
43	<b>Miscellaneous</b>	
	a	The software with Devnagri Script should also be supplied.
	b	The system should be portable with facility to set it up within 2 hours. It should be possible to transport the Simulator in Qualis/ Innova size vehicles.
	c	Total weight of the system should not be more than 600 Kgs.
	d	The system should work within normal voltage of 220 volts AC single phase/Generator/30 minutes UPS backup.
	e	The computer with latest configuration 4GB RAM, 320 GB HDD. CD-RW/DVD.
44	Storage Capacity:- There should be adequate data storage capacity for minimum 5 years available in the Simulator for use during its life span.	
45	Endurance:- It should be able to operate for 6 hours without a break and a minimum of 12 hours of operation in a day should be possible.	
46	Temperature Range:- The Simulator should be capable to operate effectively in the temperature ranging from (-) 2 degree Celsius to (+) 55 degree Selsius.	
47	Tropical Condition:- The system should be capable of operating up to (+) 35 degree Celsius with 90% relative humidity.	
48	<b>Administrative Requirements</b>	

a	A reasonable level of in house R&D back up of the manufacturer in India is desirable as the end user would like to constantly review and upgrade the technology to cater to future training requirements. Such R&D facility should be certified by Government of India.
b	The end user may share confidential information with the firm for necessary customization to meet its specific requirements. To ensure that the firm has information security systems in place, the firm should be ISO/IEC 27001 (ISMS) certified and compliant.
c	The equipment should be portable and it should be possible to set it up at different sites within 2 hours.

### **Technical Specifications of Hand Grenade Simulator**

<b>GENERAL REQUIREMENTS</b>		
1	The Hand Grenade Simulator should provide exact feel and experience of handling a real and genuine "Grenade hand 36 M HE" which is manufactured by Ordnance Factory.	
2	The Simulator should have adequate safety while handling.	
3	The Simulator should support as a training aid for grenade throwing and lobbing.	
4	The user should feel that a genuine grenade in weight, shape and size of "Grenade hand 36 M HE" he/she is throwing.	
5	The blast sound, smoke and waves generated by the Simulated Grenade should be identical to that of real grenade 36M HE.	
6	The Simulated Grenade must not get fragmented. This will avoid injury and enable the simulator grenade to be reused for further training of personnel.	
7	The Simulated Grenade may be used repeatedly for a number of times.	
<b>Technical Details</b>		
1	Material:- Grenade should be made of material, which shall give feel like that of a real hand grenade. The material should help in absorbing the shocks, so that the shell of the simulated grenade never breaks.	
2	Safety Vent:- Since safety Vent is used as an opening for the purpose of insertion of ammunition in a original grenade but in a Simulated Grenade, the opening should be a dummy opening and it should be used as safety vent.	
3	Guide Tube:- A detachable guide tube should be available in the simulated Grenade so that it may be cleaned as and when required and may be replaced with a new one in case of any necessity.	
4	Base Plug:- The base plug should be available to close the base opening of the simulated grenade shell. The base plug should help not only in closing the base opening but also to take the impact load.	
5	Option Feature:- Simulated Grenade should have option for rifle for launcher with 5.56mm INSAS.	
SI	TECHNICAL SPECIFICATION	
(A)	SIZE	
1	Length	9 cm (90 mm +/- 5mm)
2	Diameter	6 cm (60 mm +/- 3mm)
3	Shape	Cylinder (Link Hand Grenade)
4	Weight	Should resemble (App. 790 gms +/- 10 gms Total Assembly)
5	Sound	Close to actual grenade
6	Feel	Same as original i.e. 36 M HE Grenade
7	Actuation	Spring loaded
8	Time between pin striking and lob	Amplify safe
(B)	BLAST AFTER THROWING /LOBBYIN OF LAUNCHING FROM RIFLE	
1	Hand Grenade	4 Sec
2	Rifle Grenade launching	7 Sec
3	Type of Cartridge used	Pyrotech cartridge (Additional 4 sets extra)
(C)	Each set should have at least 100 shells and 4000 cartridges.	
<b>OTHER REQUIREMENTS</b>		
a	Firms participating will indicate the warranty period of Hand Grenade Simulator along with the details of repair/AMC facility in India. Minimum one year warranty is required.	
b	Firms participating must have supplied similar product to State Police Organisations and Central Para-Military Organisations.	
c	If required, a functional demonstration would be conducted within specified duration as deemed fit by competent authority from date of opening of tender and participating firms should ensure and present with product for same within stipulated period.	
<b>TECHNICAL SPECIFICATION</b>		
*	Replica of actual grenade.	
*	Not a Dummy Grenade.	
*	Non-fragmenting grenade.	
*	Creates flash, blast, smoke, sound and shock.	
*	Simulates shape, components, weight, explosion timing and sounds.	
*	Reusable upto 80-100 times.	
*	Allows arming and disarming drills of grenade as in actual.	
*	No casualties or injuries.	
*	Grenade can be fired with a rifle.	
*	Trainees can lob grenades simultaneously.	
*	Save time and effort.	
*	Negligible running cost of operating.	
*	Training can be conducted even in a limited open area or within unit area.	
*	24x7 training cycle.	
*	No restriction of minimum number of personnel required to commence training.	

*	Easy portability enabling frequent movement to impart training to all.
*	Realistic training.
*	Capability to raise training standards across the board with minimum cost.