

संख्या. पी-63013/171/02/2025/मोड- I/सीसुबल
भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय: आधुनिकीकरण सैल)
(Email-comdtord@bsf.nic.in)
(Fax: 011-24367683)

ब्लाक संख्या . 10,
सीजीओ काम्पलैक्स,
लोधी रोड, नई दिल्ली-03
दिनांक ___ अक्टुबर 2025

सेवा में,

महानिदेशक:- आसाम राईफलस (through LOAR), केन्द्रीय ओद्यौगिक सुरक्षा बल,
केन्द्रीय रिजर्व पुलिस बल, भारतीय तिब्बत बोर्डर पुलिस, सशस्त्र सीमा बल,
राष्ट्रीय सुरक्षा गार्ड एवं पुलिस अनुसन्धान एवं विकास ब्योरो

विषय: अनुमोदित गुणात्मक आवश्यकता /परीक्षण निर्देशों का प्रेषण

तकनीकी विशेषज्ञों के उप समूह द्वारा किए गये सूत्रीकरण एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित **"Passive Night Vision Goggle- Revision"** उपकरण के संशोधित गुणात्मक आवश्यकता/परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

संलग्न : उपरोक्तनुसार

आनन्द सिंह 9/10/25
(आनन्द सिंह तक्षक)
उप महानिरीक्षक (रसद)

प्रतिलिपि :-

- तकनीकी निदेशक
The Technical Director
राष्ट्रीय सूचना-विज्ञान केन्द्र, नोर्थ ब्लाक,
गृह मंत्रालय, नई दिल्ली
NIC, North Block, MHA
New Delhi (द्वारा ई-मेल)
(ई-मेल पता : mpsugandhi@nic.in)

: आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों जोकि गृह मंत्रालय की वैबसाईट (पुलिस आधुनिकीकरण संभाग) के गुणात्मक आवश्यकता पोर्टल में मशीनरी एवं उपकरण के साथ निगरानी उपकरण वर्ग के अर्न्तगत क्रमांक संख्या-147 पर पहले से अपलोड है के स्थान इस पत्र के साथ संलग्न संशोधित गुणात्मक आवश्यकता/ परीक्षण निर्देशों को अपलोड करने का श्रम करें।
- SO (IT), North Block, MHA
(Through E-mail)
(E-mail address: soit@nic.in)

: कृपया उपरोक्तानुसार कार्यवाही करने का श्रम करें।
- Sh. Samarth Sharma,
Director Nodal Officer for MHA GeM,
3rd Floor, Jeevan Bharti Building
Conaught Lane, Janpath Cannaught
Place, N/ Delhi-110001
E-mail:directorcategory13@gem.gov.in

For info with request to upload the approved QRs & TDs of **"Passive Night Vision Goggle- Revision"** on GeM Portal. Copy of QRs & TDs is attached with this letter.
- तकनीकी विंग, सीमा सुरक्षा बल

: कृपया उक्त उपकरण के गुणात्मक आवश्यकता/परीक्षण निर्देशों को सीमा सुरक्षा बल की वैबसाईट पर अपलोड करने का श्रम करें।
- रसद निदेशालय (आयुद्ध अनुभाग)
E-mail:scord@nsg.gov.in

: आपके यूओ संख्या-1594 दिनांक 26 मई 2025 के सन्दर्भ में अनुमोदित उपकरण के संशोधित गुणात्मक आवश्यकता/ परीक्षण निर्देशों को आपके सूचनार्थ एवं अग्रिम कार्यवाही हेतु प्रेषित जाता है।
- फाईल।

QRs & TDs OF PASSIVE NIGHT VISION GOGGLE (PNVG)-Revision

S/No	PARAMETER/ SPECIFICATION	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/ DESIRED																
1.	Weight: Maximum 550 gm including cells/ batteries, OG cover and eye guard.	Measure the weight of the PNV Goggle including cells or batteries, OG cover and eye guard with the help of calibrated weighing machine.	Should not be more than 550 gm including cells/batteries.																
2.	<p>Image Intensifier Tube (II Tube) All parameters of II Tube mentioned below should be supported by certificate of II tube manufacturer and data sheet of each II Tube must be provided: -</p> <p>a) Resolution: 72 lp/mm or better b) Signal to Noise Ratio (SNR) 26 or better at 108 p lux. c) Mean Time to failure (MTTF): Minimum 10,000 operational hours. d) It should have inbuilt BSP (Bright Source Protection). e) It should have inbuilt AGC (Automatic Gain Control). f) Testing of II Tube as per MIL-I-49052G standard. g) Permissible black spot level</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Size of spot (in inches)</th> <th>Zone 1 (6mm)</th> <th>Zone 2 (6mm-15mm)</th> <th>Zone 3 (15mm-18mm)</th> </tr> </thead> <tbody> <tr> <td>0.003 to 0.006</td> <td>0</td> <td>1 (Max)</td> <td>2 (Max)</td> </tr> <tr> <td>0.006 to 0.009</td> <td>0</td> <td>1 (Max)</td> <td>1 (Max)</td> </tr> <tr> <td>>0.009</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	Size of spot (in inches)	Zone 1 (6mm)	Zone 2 (6mm-15mm)	Zone 3 (15mm-18mm)	0.003 to 0.006	0	1 (Max)	2 (Max)	0.006 to 0.009	0	1 (Max)	1 (Max)	>0.009	0	0	0	<p>Send the equipment to verify/check the QRs para 2(a), (b),(d), (f) & (g) to IRDE Dehradun or any other Govt. institution where such testing facilities are available and check the report provided by the IRDE or other institutions.</p> <p>The firm to provide OEM certificate/report in respect of QRs Para 2(c) & (e) from OEM of II tube.</p>	<p>Parameters of II Tube must be as per mentioned in the QRs para 2(a), (b),(d), (f) & (g).</p> <p>A certificate must be obtained from the firm.</p>
Size of spot (in inches)	Zone 1 (6mm)	Zone 2 (6mm-15mm)	Zone 3 (15mm-18mm)																
0.003 to 0.006	0	1 (Max)	2 (Max)																
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>0.009	0	0	0																

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S/No	PARAMETER/ SPECIFICATION	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/ DESIRED
3	Mount: Must be capable of being used as a hand-held viewer, face & helmet mounted. Light weight and rust proof adaptor should be provided with each equipment.	Fix the equipment on face with the help of mask/strap or head mount adaptors provided with the equipment. Again, fix the equipment on helmet with the help of helmet mounts	Equipment should be easily mounted on the face mask or strap or head mount and user friendly for hands free operation. It should also have the facility to be mounted on helmet with supplied/provided adaptor or mount and should be user friendly & comfortable.
4	Ingress protection: IP 67 or better.	Tighten the battery cover properly. The equipment should be immersed in one meter depth of water excluding the height/width of the equipment, for half an hour. Take out the equipment from the water container and switch 'ON' after drying it. Firm to provide NABL accredited lab certificate.	Wipe the equipment with a soft cleaning cloth and dry it externally. Check by opening the battery compartment and other external open able parts for ingress of water content inside. If it is found OK then insert the battery and switch ON the equipment. It should run properly and no water contents/wipes should be appearing on the view.
5	Range (in star lit conditions without moon): For Human being Detection- 250 meters or better Recognition-150 meters or better For light commercial vehicle: Detection- 400 meters or better Recognition- 300 meters or better	Place two or three men in camouflage at the range of 250 meters and 150 meters in extended line formation and move them. (Light conditions should be checked by Lux Meter and value of light level is less than or equal to 10^{-3} lux). Again, place a light commercial vehicle at different angles at a distance of 400 meters & 300 meters for detection & recognition respectively. (Light conditions should be checked by Lux Meter and value of light level is less than or equal to 10^{-3} lux +5%).	Movement of human target should be detected at the range of 250 meters and recognized at 150 meters clearly. Similarly, Movement of vehicle should be detected at the range of 400 meters and recognized at 300 meters clearly. Note: Detection means presence of something is there, whereas recognition means what type of target is there and the type of movement.
6	Power source: i) Should be operable independently on primary and rechargeable cells and batteries. The equipment is to be supplied with one set of commercially available primary &	i) Switch 'ON' the equipment by inserting two primary cells & two rechargeable batteries in it one by one separately. Physically check the supplied/provided set of primary & rechargeable batteries.	i) The equipment should be operated independently on primary & rechargeable cells and batteries.

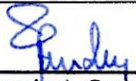
S/No	PARAMETER/ SPECIFICATION	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/ DESIRED
	rechargeable batteries. ii) The batteries should run at least 10 hrs with IR and 20 hours or better on normal mode. iii) One commercially available charger with each PNV goggle required with charging facility both AC volt and DC volt (2-in-one facility).	ii) Switch 'ON' the equipment after inserting new cells or batteries for 20 hours in normal 'ON' mode. After this again switch 'ON' the equipment for at least 10 hours in IR mode with fresh batteries. iii) Charger provided for charging batteries should be easily available in commercial market. Connect the charger on AC mains supply of 220 volt as well as on DC supply.	ii) PNV Goggle should run at least 10 hours with IR and 20 hours on normal mode. iii) Rechargeable cells or batteries should be charged with the charger provided on both AC Mains 220 Volt supply and on 12/24/36 volt DC supply.
7.	Must have Eye safe IR LASER illuminator for use in totally dark environment for recognition at a range of 125 meters or better.	a) Switch 'ON' the PNV Goggle in IR LASER Mode in totally dark environment. b) Firm to provide OEM certificate for Class-I Eye safe. BOO to check the certificate.	A certificate must be obtained from the firm.
8	<u>Low battery indication:</u> Low battery indication should be provided inside the Field of view (FOV)	Switch 'ON' the equipment on power supply and reduce the supply voltage linearly for low battery indication confirmation	Low battery indication should be provided inside the FOV.
9.	<u>Magnification</u> 1 x or better	Fix the equipment on instrument testing scale of integrated test equipment and measure the magnification of the PNV Goggle as per the procedure.	Magnification should be 1x or better.
10	<u>Field of View:</u> 45° ± 5 or better	Fix the equipment on instrument testing scale of integrated test equipment and measure the Field of View as per the procedure.	FOV should be 45° ± 5 or better.
11	<u>Diopter adjustment:</u> -5d to +4d dioptre or better	Measure the Diopter adjustment with the help of Diopter kit or apparatus.	The PNV Goggle should have Diopter adjustment from -5d to +4d or better.
12	<u>Vision</u> Binocular vision with single II tube	To be Physically checked by BOO.	The Goggle should be Binocular with single II Tube.
13	<u>Operating temperature :</u> -30° C to +55° C (should comply with MIL STD 810G or JSS 55555)	Firm to provide NABL/ International accredited lab certificate in r/o operating temperature. BOO to check the certificate.	An NABL/ International accredited lab certificate/ report must be submitted by the firm.
14	<u>Storage temperature</u> -30° C to +60° C	Firm to provide NABL/ International accredited lab certificate in r/o storage temperature.	An NABL/ International accredited lab certificate/ report must be submitted by the


S/No	PARAMETER/ SPECIFICATION	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/ DESIRED
		BOO to check the certificate	firm.
15	Carrying case: a) Each equipment should be supplied with a suitable hard carrying case.	To be physically checked by BOO. Firm to provide a rugged hard carrying case. The PNV Goggle after keeping in hard carrying case, subject to sustain a drop test from 2 meter height on a hard flat surface. No deformations/ cracks on hard carrying case are acceptable. PNV Goggle to be checked for operational use post drop test.	It should be as per specification mentioned in QRs.
	b) Soft carrying case should be light weight water resistant	It should be light weight, water resistant and must compliant to IP-65. Firm to provide NABL/ International accredited lab test report/ certificate. BOO to check the certificate.	Soft carrying case must be light weight water resistant. NABL/ International accredited lab certificate/report must be submitted by the firm.
16	Environmental requirement: Goggle should confirm to JSS 55555 or Mil Std 810-G latest for humidity, shock, vibration, rain test etc. to be supported by NABL accredited laboratory certificate.	Firm to provide NABL/ International accredited lab certificate/ report in r/o JSS55555 or MIL STD-810G. BOO to check the certificate.	NABL accredited lab certificate/report should be submitted by the firm which confirms JSS 55555 or MIL STD 810-G for humidity, shock, vibration, rain test etc.
17.	Interpupillary Distance 55-72 mm	To be checked by BOO.	It should be as per specification mentioned in QRs.
18.	Reverse Polarity Protection: It should have integrated reverse polarity protection.	To be physically checked by BOO.	It must have reverse polarity protection.
19.	Miscellaneous		
	i) Purging kit be provided at the time of supply (quantity be specified by the user)	(i) Firm to provide undertaking certificate in this regard. BOO to check the certificate.	It should be as per specification mentioned in QRs.
	ii) One additional set of battery be provided.	(ii) To be physically checked by BOO.	
	iii) Cleaning kit be provided with each of the equipment.	To be physically checked by BOO.	It should be as per specification mentioned in QRs.
	iv) Supplier to submit undertaking to provide spare parts for next 10 yrs. minimum from the date of supply.	Firm to provide undertaking certificate in this regard. BOO to check the certificate.	It should be as per specification mentioned in QRs.
	v) Illustrated spare part list along with		

S/No	PARAMETER/ SPECIFICATION	PROCEDURE SUGGESTED FOR TRIAL	RESULT EXPECTED/ DESIRED
	photograph and cat part number to be provided.		
	vi) Technical manual/operational manual including repair manual of PNV Goggle.	Firm to provide undertaking certificate in this regard. BOO to check the certificate.	It should be as per specification mentioned in QRs.
	vii) a) Repair & maintenance training should be arranged for at least 02 persons or 02 persons on 100 equipment for 01 week. b) The Operational training should be conducted at field location for 02 days.	Firm to provide undertaking certificate in this regard. BOO to check the certificate.	It should be as per specification mentioned in QRs.
	viii) Warranty: warranty of minimum 02 years and shelf life of 10 years.	Firm to provide undertaking certificate in this regard. BOO to check the certificate.	An undertaking in this regard must be obtained from the firm.



 (Ravi Gandhi), ADG (Log), BSF



 (Sunil Kumar), Comdt, (Ord) BSF

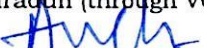

 (Rajesh Pandey), Comdt, Tech), ITBP


 (Dr. Vinay Kumar), IRDE, DRDO, Dehradun (through VC)



 (Sh. K L Puri, SP, BPR&D (through VC)



 (Lt Col Sumit Vashisht), Assam Rifle (through VC)


 (Mukesh Kumar), 2IC, SIW, BSF



 (Anil Rajput), DC, Tech Cell, BSF


 Sh. Ujjwal Mandal, DC, CISF


 (Pankaj Thapa), AC (Prov), SSB


 (Jaswinder Singh), AC, CRPF


 (N.K. Roy), AC
 NSG


 (SI/RM Mohd Shakil), SIW, BSF

Approved/Not approved


 Director General
 Border Security Force