

F/No. P-63013/05/2014-Ord/BSF/MHA/Prov-I 1555
Bharat Sarkar/Government of India
GrihaMantralaya/Ministry of Home Affairs
PM Division/Prov.I Desk

26, Man Singh Road, Jaisalmer House
New Delhi, Dated 10th August, 2015

To,

DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject: QRs and Trial Directive for Binocular 20X.

Sir,

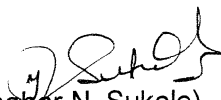
The QRs and Trial Directives in respect of Binocular 20X as per Annexure have been accepted by the Competent Authority in MHA.

2. The CAPFs concerned will be accountable for correctness of the QRs/Trial Directives

3. Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.

Yours faithfully,

Encl: as above


(Manohar N. Sukole)

Under Secretary to the Govt. of India

Tel: 23381278

Copy forwarded for necessary action to :-

SO (IT), MHA : It is requested to host the QRs and Trial Directives (soft copy attached) on the MHA website (under the page of Organizational Set up- Police Modernization Division- Qualitative Requirement under Surveillance Equipments.


(R.K. Soni)

Section Officer (Prov-I)

Copy to: DDG (Procurement), MHA.

O/C

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DIRECTOR GENERAL BORDER SECURITY FORCE
PROVISIONING DIRECTORATE (ORD SECTION)

The Sub-group of Technical Experts constituted by MHA vide their letter No. IV-24011/12/2011-Prov-I dated 13 Jun 2012, No. IV-24011/12/2011-Prov-I dated 28 Dec 2012 & UO No. IV-24011/12/2011-Prov-I- 350 dated 27 Jun 2013 held its meeting at BSF Headquarters on 20 May 2014, 21st July 2014, 01 Aug 2014, 05th Nov 2014, 22nd Dec 2014, 13th Feb 2015, 01st April 2015, 29th May 2015^{11/12/2015} to formulate the Qualitative Requirement of "Binocular 20 X". After detailed deliberations the referred Sub-group has finalized the QRs/TDs which are as under:-

QUALITATIVE REQUIREMENT OF BINOCULAR 20X

S.No	Qualitative Requirement	Parameters
1	Magnification	20x
2	Objective Diameter (Entrance Pupil)	80 mm
3	Exit pupil	3.5 to 4 mm
4	Eye relief	15 mm to 18 mm
5	Light Transmission to the viewer without laser filter	≥ 85%
6	Optics coating	Fully Multicoated
7	Field of View	Angular: Minimum 2.75° or better
8	Apparent field of view	Minimum 55°
9	Dioptric range	±5 d or better
10	Inter pupillary distance	56-72 mm
11	Operating Temp Range	- 40° to + 60°
12	Weight of Binocular with OG cover.	Hand Held 3.2 kg maximum.
13	Nitrogen pressure filling	One way or Two way valve system
14	Quality parameter	All unit/ sub unit must comply Mil Grade 810 G Standard.
15	Environmental Protection	Must comply to IP - 67

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16	Laser protection filter Class 1 eye safe	Required
17	Prisms (Roof)	BAK4/ Similar or better.
18	Rubber armoring	Non-slip UV-resistant
19	Body Structure	Fiber Re-inforced polycarbonate rubber armoured housing
20	ISO certification for FOV	ISO14132- 1:2002
21	Suitable, ruggedized, anti corrosion coated/ painted Tripod should be provided.	
22	Hard and ruggedized transportation box should be provided.	

[Signature]
 11/6/15
 (B.C. JOSHI) DIG, SINBSF
[Signature]
 (Ravi Ranjan, Int/Ext)

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 MAJ VISHAL GUDERIA (SINBSF)
[Signature]
 SPTM S. S. MANIAR, AC SINW
 SIR BSF
[Signature]
 (KAPIL S S A CE) BPR&O

[Signature]
 (S. S. MANIAR, AC SINW)
[Signature]
 (Abhinav DANKAJ) DC, CRPF

[Signature]
 (SATYANDEB SINBH) ITBSF

[Signature]
 (PARDEEP SHARMA) INSP (T) BSF SINW

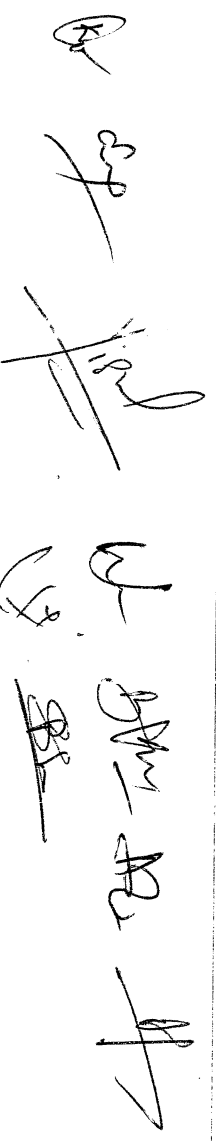
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 (D K PATHAK) IPS
 DIRECTOR GENERAL
 BORDER SECURITY FORCE

TRIAL DIRECTIVES OF BINOCULAR 20 X

S.No	Qualitative Requirement	Parameters	Procedure suggested for trial for Board of Officers	Result expected / desired
1	Magnification	20 ^x	Check the magnification on test station as per the standard procedure.	The magnification must be 20x or better.
2	Objective Diameter (Entrance Pupil)	80mm	Measure physically the objective entrance pupil diameter with the help of verniercaliper.	The Objective entrance pupil diameter must be 80 mm or better.
3	Exit pupil	3.5 to 4 mm	Measure physically the exit pupil (eye piece side) diameter with the help of verniercaliper.	Exit pupil must be in between 3.5 to 4 mm.
4	Eye relief	15 mm to 18 mm	Measure the distance of observer eye to eye piece till the full field of view can be comfortably observed.	Eye relief must be in between 15 to 18 mm.
5	Light Transmission to the viewer without laser filter	≥ 85%	Measure Field of view on test station as per the standard procedure.	The light transmission should be :-2 85%.
6	Optics coating	Fully Multicoated	The firm should submit the National or International accredited lab certificate or report in respect of Optics coating.	Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.

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7	Field of View	Angular: Minimum 2.75° or better	Measure Field of view on test station as per the standard procedure.	Field of View must be 2.75° or better.
8	Apparent field of view	Minimum 55°	The firm should submit the National or International accredited lab certificate or report in respect of apparent Field of View.	Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
9	Dioptric range	±5 d or better	Measure the dioptor range with the help of dioptor apparatus set up.	Dioptric range must be ±5 or better.
10	Inter pupillary distance	56-72 mm	Measure physically the inter pupillary distance between both eyepieces from their center.	Inter pupillary distance must be in between 56 to 72 min.
11	Operating Temp Range	- 40° to + 60°	The firm should submit the National or International accredited lab certificate or report in respect of apparent Field of View.	Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
12	Weight of Binocular with OG cover.	Hand Held - 3.2 kg maximum.	Measure the weight of the Binocular including Tripod, shouldier strap and Laser protection filter.	Weight must not be more than 3.2kgs including mentioned accessories.



 The above information is correct and true.

 Date: _____

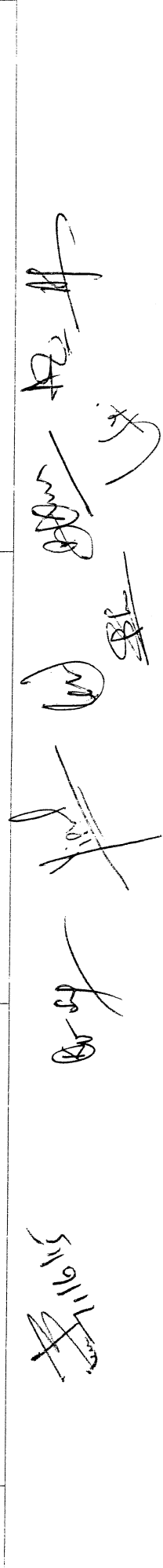
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13	Nitrogen pressure filling	One way or two way valve system	Check the system for the facility to purge the Nitrogen in OG assembly and eye piece assembly separately.	Two valve system (one for OG assembly and one for Eye piece assembly) must be provided to purge the Nitrogen in the system.
14	Quality parameter	All unit/ sub units must comply Mil Grade 810 G Standard.	The firm should submit the National or International accredited lab certificate or report in respect of Mil Std 810 G or better.	Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
15	Environmental protection	Must comply to IP-67	The firm should submit the National or International accredited lab certificate or report in respect of IP - 67.	Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
16	Laser protection filter Class 1 eye safe	Required	<p>a) Check physically the Laser protection filter is provided by the firm.</p> <p>b) The firm should submit the National or International accredited lab certificate or report in respect of Laser protection filter.</p>	<p>a) Laser protection filter must be provided.</p> <p>b) International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
17	Prisms (Roof)	BAK4/similar or better.	<p>Turn binoculars around and look down the front lens towards the inside</p> <p>The firm should also submit the National or International accredited lab certificate or report in respect of Bak-4 prisms with a <u>refractive index</u> of (1.569).</p>	<p>The prism must show a truer round, which must translates to better light transmission and edge-to-edge sharpness.</p> <p>International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab</p>

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18	Rubber armouring	Non-slip UV-resistant	<p>BOO to physically check The firm should submit the National or International accredited lab certificate or report in respect of rubber armouring.</p>	<p>The eqpt must have rubber armouring. International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab</p>
19	Body Structure	Fiber Re-inforced polycarbonate rubber armoured housing	<p>BOO to physically check The firm should submit the National or International accredited lab certificate or report in respect of Fiber Re-inforced polycarbonate rubber armoured housing.</p>	<p>The eqpt must have Fiber Re-inforced polycarbonate rubber armoured housing. International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
20	ISO certification for FOV	ISO14132- 1:2002	<p>The firm should submit the National or International accredited lab certificate for ISO certification of FOV .ISO 14132-1:2002</p>	<p>Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
21	Suitable, ruggedized, anti corrosion coated/ painted Tripod should be provided		<p>The firm should submit the National or International accredited lab certificate or report.</p>	<p>Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>



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<p>22</p> <p>Hard and ruggedized transportation box should be provided</p>	<p>BOO to physically check</p> <p>The firm should submit the National or International accredited lab certificate or report.</p>	<p>Check the authenticity of National / International accredited lab test certificate / report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
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(B. C JOSHI) D15,
S100, B35F

[Signature]
MADHUSHIL GURJAN
S13 AC

[Signature]
(S. S. MANNARAT, A150)

[Signature]
(Ravi Ranjan Duttar)

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S11M B150000107
S1R 251F

[Signature]
KILAN KIN, BSA

[Signature]
(KAPIL) SSA (E)
BPR82

[Signature]
(ABHIRAM PAUKAT) DC
CRPF

[Signature]
(JINR PRADEEP SHARMA) S100, B35F

[Signature]
(Satinder Singh)
DC ITSP

✓ RECOMMENDED / NOT RECOMMENDED

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(D K PATHAK) IPS
DIRECTOR GENERAL
BORDER SECURITY FORCE