Dy. No.	DG  Tackbou)  HQ DG BSF  Office of IG  Dy No 28  Date 5710  PATT  Bharat Sarkar/Government of India  Griha Mantralaya/Ministry of Home Affairs  PM Division/Prov. I Desk  ******	96 112
	26, Man Singh Road, Jaisalmer New Delhi, Dated September To, DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPF	r, 2012
9 4	Subject : QRs and Trial Directives	
	The QRs and Trial Directives in respect of Set Beam Search Light Annexure have been accepted by the Competent Authority in MHA	as per
	2. Henceforth, all the CAPFs should procure the above items required b strictly as per the laid down Technical Specifications/QRs.	y them
D16 (Pros)	Yours fa (S. B. N Under Secretary to the Govt. o Tel : 233	Nanda) of India
	Copy forwarded for necessary action to :-	
Combi		ectives age of allitative
C Show	(Ritesh & Section Offcier (Fopy to : Director (Procurement), MHA. Copy for information to : PS to JS (PM)	
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#### Directorate General Border Security Force

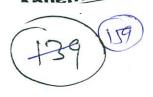
(Prov Dte: Ord Sec)

The Sub-group of technical experts on surveillance equipment constituted by MHA vide their letter No. IV-17017/18/2001-Prov-I dated 05 Jul 2002 held its meeting at BSF HQ on 22 Feb 2011, 03 April 2012, 02 May 2012 and 26 Jun 2012 and formulate the QRS of Set Beam Search Light as requested by NSG as under:-

#### QUALITATIVE REQUIREMENTS - SET BEAM SEARCH LIGHT

1	It should be compact slim and lightweight. Maximum weight not to
	exceed 3.5 Kgs including rechargeable battery.
2	Body must be made of reinforced plastic or any other rust proof & non reflective material (Firms should provide NABL accredited Lab certificate).
3	It must be provided with a water proof lightweight carrying case with carrying sling and spare battery compartment.
4	Light source should be a Xenon lamp of minimum luminosity of 11 million candle light. The firm should provide NABL accredited lab test report for the same.
5	Light source should have a minimum life of 2500 working hours. The firm should provide NABL accredited lab test report for the same.
6	The maximum beam divergence should be 1 degree in the spot mode and 40 degree in flood mode. The firm should provide NABL accredited lab test report for the same.
7	It should confirm to JS-55555. The firm should provide National/International accredited lab certificate.
8	It should be able to operate for a minimum of 60 minutes continuously in high beam mode without over heating thereby ensuring comfortable handling of the equipment.
9	It should have separate yellow (fog) filter and Infrared filter which can be easily attached / de-attached.
10	It should be capable of being operated in hand held mode and be able to be mounted on a vehicle and on remote location using suitable mount & tripod (As specified by the user). All function being operated from a distance of min 100 mtrs by using remote control (with wire & wireless).
11	The set beam search light should be able to detect man size objects till 1000m at full glow.
12	Capable of being mounted on vehicle and helicopter (to be specified by the user).
13	The cyclic life of battery should be at least 1000 cycles supported by battery OEM certificate.
14	The maximum charging time of batteries should not be more than 3 hrs.
15	The set beam search light should be operable as well as chargeable on 12V vehicle battery and AC mains supply 220V 50 Hz. The compatible connectors and cables should be provided with each equipment.

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	Miscellaneous
1	One spare bulb should be provided with each equipment
2	2 Set of spare rechargeable batteries along with 01 battery charger should
	be provided alongwith every Set Beam Search Light.
3.	Spares and accessories back up for minimum 07 years and to be readily
	available with firm with no delay for purpose of import or otherwise. The
	firm should provide undertaking for the same.
4	User manual, literature and circuit diagram to be provided with each
	equipment. Complementary training on handling, repair & maintenance
	to be provided by the OEM.
5	The list of spares along with price should be provided.
6	Additional standard accessories to be provided alongwith each
	equipment:-
	i. Vehicle and helicopter carrier mount (to be specified by the user).
>	ii. Tripod stand with suitable man pack.

(Manish Raj)

SI (Tech), SIW, BSF

(P R Kumar)

DC (SIW), BSF

(R S Chandel)

2IC/Sqn Cdr, NSG, TSG

(J R Dahiya)

AC, ITBP

(Pradeep Kumar)

JE (QA), DQA(A), DGQA

(Pankaj Kumar)

Dy Director, DRDO

(C P Trivedi)

Commandant, SIW, BSF



Appendix 'B'

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# TRIAL DIRECTIVE FOR

# SET BEAM SEARCH LIGHT



## **CONTENTS**

S/N	PARTICULARS	P/ N
1.	Introduction	03
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3.	General Instruction	04
4.	Composition of the Board	04
5.	General requirements	04
6.	Trial directives	05-07
7.	Copy of approved QR by MHA	yet to be
		approved

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#### **INTRODUCTION:-**

In order to perform better surveillance during night, the troop requires a better light source which can illuminate the area under surveillance up to a long distance. The existing Hand Held Search Light has a limitation that it can illuminate the area up to a limited distance only. The Set beam search light is design to used under extreme Climatic condition with a maximum lighting distance over a 1000 mtr for clear visibility and longer run time. The set beam search light can be equipped with carrying and mounting strap so you can fasten the search light to a helicopter and also with a screw threaded for mounting on a tripod. The perfect design of the body of the search light eliminates overheating and therefore the search light has no restrictions or limitations if use continuously.

#### AIM:-

To frame trial directives to facilitate BOO to carry out physical evaluation of Tender sample of Set Beam Search Light at the time of procurement process.

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### **GENERAL INSTRUCTIONS-**

- 1. This trial directive is issued to assist and guide the evaluation committee. Nothing in this trial directive absolves the BOOs from their responsibility to ensure that the evaluation is carried out strictly as per the specifications in every respect.
- 2. The Evaluation committee may carry out additional test, which they considers necessary, after seeking approval of Competent Authority, to verify the quality of the tender sample with the specifications.
- **3.** The Evaluation committee should ensure proper safety of man and equipment during evaluation to avoid any damage.
- **4.** Trial / evaluation will be conducted in presence of firm representative only.

#### **COMPOSITION OF THE BOARD:-**

The physical evaluation of the tender samples of set beam search light will be carried out by the Board of Officers detailed by the competent authority as per the value of total stores.

### **GENERAL REQUIREMENT:**

Following test instruments should be available during the trial:

- (a) Weighing Machine
- (b) Measuring Tape
- (c) Multimeter
- (d) Stop watch

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S No.	<u>Parameters</u>	Procedure suggested for trial	Result expected / desired
01.	It should be compact, slim, light weight.  Max weight not to exceed 3. 5 Kgs including rechargeable battery.	Measure the weight of the set beam search light including rechargeable battery with the help of weighing machine.	The weight should not exceed more than 3.5 kgs.
02.	Body must be made of reinforced plastic or any other rust proof & non reflective material(firm should provide NABL accredited lab certificate).	Should be checked physically or firm should submit accredited lab test report regarding the material used and rust proofing.	Check the supporting documents provided by the Lab. The respective document must indicate that the body be made of plastic or any other rust proof material. In case of any doubt, the veracity of document be checked from concerned Lab.
03.	It must be provided with a water proof	Should be checked physically	Must be water proof.

TRIAL DIRECTIVE FOR SET BEAM SEARCH LIGHT

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accredited lab certificate.

should provide National/International

It should Confirm to JSS-55555, The firm

The firm should provide National/ international

accredited Lab certificate (Check the supporting

should confirm to JSS-55555. In case of any doubt, the Check the supporting documents provided by the Lab. It

veracity of documents be checked from concerned Lab

documents provided by the firm)

16.

deg in spot mode and 40 deg in flood

Maximum beam divergence should be 1

Should

be

checked

physically.

(NABL

mode.

be checked from concerned Lab.

divergence as 1 deg in spot mode and 40 deg in flood

In case of any doubt, the veracity of document

Check the supporting documents provided by the Lab.

checked from concerned Lab.

The respective documents must indicate maximum beam

source should have minimum life of 2500 working hours.

The respective documents must indicate that the Light

In case of any doubt, the veracity of document be

Check the supporting documents provided by the Lab.

document be checked from concerned Lab.

11 million candles.

source should be a Xenon lamp of minimum luminosity of

In case of any doubt, the veracity of

The respective document must indicate that the Light

Check the supporting documents provided by the Lab.

Accredited lab test report)

105

2500 working hours.

Light source should have minimum life of

Check the supporting documents provided by

the firm. ( NABL Accredited lab test report)

12

candles light.

minimum luminosity of 11 million Light source should be a Xenon lamp of sling, and spare battery compartment. lightweight carrying case with carrying

report for the same.

Firm should submit NABL accredited lab test

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12.	11.	10.	09.	08.
Capable of being mounted on vehicle & helicopter (to be specified by the user).	The set beam search light should be able to detect man size objects till 1000 meters at full glow.	It Should be capable of being operated in hand held mode and be able to be mounted on a vehicle and on remote location using suitable mount & tripod(As specified by the user). All function being operated from a distance of min 100 mtrs by using remote control (with wire & wireless).	It should have separate yellow (fog) filter and Red filter which can be easily attached/ de-attached.	It Should be able to operate for a minimum of 60 minutes continuously in high beam mode without overheating thereby ensuring comfortable handling of the equipment.
Should be checked physically by the Board of officers(BOO's)	Place a man or man size target at the range of 1000 meters and move them horizontally. at different angles for the detection (should be checked physically)	Should be checked physically, and remote distance will be checked with the help of measuring tape .All the Functions of remote be also checked physically.	Should be checked physically.	Measure the operating hour with the help of stop watch, and overheating should be checked physically.
Must be capable of being mounted on vehicle/tripod /he/scopter. To be ensured by BOCs (as per user specification).	Should detect at a distance of 10 )0 mtrs at full glow.	Nlus! be capable to operate in hand held mode and mounted on a vehicle. And must be operated at a distance of minimum 100 mtrs.	IAust have separate yellow (fog) filter and Red filter which can be easily attached/ deattached.	Should operate for a minimum of 60 minutes continuously in high beam mode without overheating
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'n	2.	<u> </u>	Misce	15.	14.	13.
Spares and accessories back up for minimum 07 years and to be readily available with firm with no delay for purpose of import or otherwise. The firm should provide undertaking for the same.	2 set of spare rechargeable batteries along with 01 battery charger should be provided along with every set beam search light.	One spare bulb should be provide with each equipment.	Miscellaneous	The set beam search light should be operable as well as chargeable on 12 V vehicle battery and AC mains supply 220V 50Hz. The compatible connectors and cables should be provided with each equipment.	The maximum charging time of batteries should not be more than 3 hrs.	The cyclic life of battery should be at least 1000 cycles supported by battery OEM certificate.
Not applicable at the time of technical / Physical evaluation	Should be checked physically by the BOO,s.	Should be checked physically by the BOO,s.		Physically Connect the Set beam search light to a 12 v battery of the vehicle through cable & connector and operate it for all functions. Further the inbuilt battery of the set beam search light be charged with the vehicle battery. For testing operation with AC mains, connect the cable to AC mains & operate it for all functions. Similarly, charging of inbuilt battery be also checked after connecting it with AC mains (To be checked physically by the BOO).	Should be checked physically by the Board of Officers.	The firm must provide OEM certificate for the same
Not applicable at the time of technical / physical evaluation	To be ensured by the BOO,s	To be ensured by the BOO,s			To be ensured by the Board of Officers.	Must provide OEM certificate to support 1000 cycle.

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1	User manual, literature and circuit diagram	Not applicable at the time of technical /	Not applicable at the time of
	be provided with each equipment.	Physical evaluation	technical / physical evaluation
	Complementary training on handling,		31
	repair & maintenance to be provided by		
	the OEM.		
5.	The list of spares along with price should	Not applicable at the time of technical /	Not applicable at the time of
7.	be provide.	Physical evaluation	technical / physical evaluation
6.	Additional standard accessories to be	After having specified by the user, it will be	After having specified by the
ii,	provided along with each equipment:-	checked physically.	user it must be suited to the
	<ul> <li>i) Vehicle and helicopter carrier</li> </ul>		equipment.
	mount(to be specified by the		
	user)		
	ii) Tripod stands with suitable man		
	pack.		

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