

**Appendix 'A'**

(Refer to Para 2 of Inf-8 (FINSAS) letter No

C/31045/2/BH/Make-II/Inf-8 (FINSAS) dt 28 Jan 22)

**QUESTIONNAIRE FOR DESIGN & DEVELOPMENT OF  
BALLISTIC HELMETS AS MAKE-II PROJ**

Ser No	Question/Specification	Reply
1.	<b><u>Company Details.</u></b> Details be accompanied with document of proof to support your responses.	
	(a) Category of the company, whether large/ medium/ small or Start Up.	
	(b) Year of existence (Established in _____).	
	(c) Annual turnover of the company in last three Financial Years.	
	(d) The credit rating of the company and net worth.	
	(e) Annual profit in the last three financial years.	
	(f) Shareholding pattern of the company.	
	(g) Whether the company is an OEM, manufacturing agency or system integrator or distributor.	
	(h) Experience of the company in related fields.	
	(j) Whether similar equipment has been supplied to any other government agency (Type of equipment, quantity and cost, date of contract/ Supply Order, details of Buyer)	
	(k) Whether company has patents/ IPR of any critical components/ sub-systems of Ballistic Helmet/ Individual Protective Equipment.	
	(l) Whether the company has any tie-ups/ Joint ventures with any foreign firm for producing similar equipment. If yes, please forward details.	
	(m) Does the firm hold valid Industrial License for subject equipment manufacturing? Provide Industrial License number.	
	(n) If no, provide details of application, in case applied for or reasons otherwise?	
2.	<b><u>Infrastructure.</u></b>	
	(a) Does the company have adequate infrastructure to develop, integrate and manufacture BH for requisite protection levels? If not, what would be the procedure and timelines to establish the same?	
	(b) Does the company have adequate infrastructure for carrying out trials and testing of equipment? If not, where is testing planned?	
3.	<b><u>R&amp;D.</u></b> Details of Infrastructure and number of employees working in R&D of systems related to the product.	
4.	<b><u>Cost.</u></b>	
	(a) Tentative cost of the prototype and the product (unit cost and total cost).	
	(b)	
	(c) Minimum quantity economically viable for business.	
5.	<b><u>Indigenous Content.</u></b>	
	(a) Likely achievable indigenous content at prototype as well as production stage.	

	(b) Critical technologies identified which are not available in India, and planned to be sourced ex-import (in cost percentage terms).	
	(c) Sub-systems/equipment manufactured by the company and details of outsourced equipment (whether indigenous or foreign).	
6.	<b><u>Time for Manufacture.</u></b> Likely time for development of the prototype (in weeks) and manufacturing of the product (per year production capacity).	
7.	<b><u>Sustenance.</u></b>	
	(a) The ability of the company to sustain the product through the lifecycle of the equipment (including spares and upgrades).	
	(b) How will you ensure continuous supply of spares especially for components procured ex-import?	
	(c) How will continuous supply of spares be ensured from sub-contractors?	
	(d) Recommended requirement of SMTs/STEs, jigs and Fixtures, if any.	
	(e) Warranty period of the product.	
8.	<b><u>Training.</u></b>	
	(a) Details of initial and refresher training required by the User and maintenance agency.	
	(b) Details of training/ operating manuals to be provided.	
9.	<b><u>Quality Certification.</u></b>	
	(a) Details regarding quality certification like ISO 9000 etc, if so, details of date of certification with validity and certification agency.	
	(b) Details of environmental standards for Complete Ballistic Helmet with all its accessories alongwith relevant class of Joint Service Standards.	
10.	<b><u>Broad Details/ Technical Specifications for Equipment required to be Developed.</u></b>	
	(a) Do you have the ability to develop the Rifle BH (Against 7.62x39 mm Mild Steel Core (MSC) bullet and productionise the same?	
	(b) Provide details of Ballistic Protection level of Rifle BH envisaged in terms of type of bullet, distance & velocity of bullet.	
	(c) Provide details of fragment protection i.e. type of fragment, mass & velocity of impacting projectile.	
	(d) Specify minimum Back Face Signature (BFS) achievable for abovementioned Ballistic Protection.	
	(e) Temperature range in which BH can operate?	
	(f) Specify the design of the BH on offer.	
	(g) Is the BH bolted/ boltless?	
	(h) Provide details of modular Communication Headset inclusive of a headphone/ earphone, modular microphone, connector cable, Press-To-Talk (PTT) switch, connector jack(s) etc.	
	(j) Feasibility of provisioning of all in one connector to ensure compatibility of a Headset with all types of in-service Radiosets (RADIOSET HX, MOTOROLA DMR, STARS V MK-III and VPS MK-III).	

	(l) Elaborate upon the modularity aspect of Communication Headset & Microphone.	
	(m) Weight of the complete Communication Headset?	
	(n) Please elaborate upon the ergonomic aspects of the BH in terms of comfort to wear continuously for six hours or more, hinderance in use of weapons, interiors and use of accessories in conjunction.	
	(o) Describe the type of harness with details on type of straps/ fasteners, point of support, chin cup, internal layer, hook disk and the complete pad set.	
	(p) How does the harness ensure NO WOBBLE of the Helmet during continued usage by providing 360° grip around the head.	
	(q) Quick release mechanism to ensure ease of wearing, adjusting and removal of helmet even while wearing ECC gloves.	
	(r) Details regarding interior padding, outer cloth cover, hook & loop fasteners be provided.	
	(s) Provisioning of Carry Bag and relevant details.	
	(t) Provisioning of <b>Shroud &amp; Tactical Side Rails</b> alongwith BH. Manner of fusing/ integration of these accessories with BH be elaborated upon.	
	(u) Details regarding the Shroud and Tactical Side Rails with respect to position, manner of fixing on BH, material used, compatibility for mounting varying devices?	
	(v) Provide details of protection levels, transmittance, weight, arrangements to fix on BH and other necessary details of the <b>Fragment Visor</b> .	
	(w) Elaborate upon the surface of the BH and the material/ fabric used for the interiors of BH.	
	(x) Provide the coverage area of the protective shell and weight of the complete BH (excluding communication equipment and visor).	
	(y) Customisable colour of the shell and accessories on offer for development.	
	(z) Service life of BH in terms of years	
11.	Any other information relevant to the project not included in the questionnaire may be forwarded.	

## **Appendix 'B'**

(Refer to Para 2 of Inf-8 (FINSAS) letter No  
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### **BRIEF OF PROJECT : BALLISTIC HELMET**

1. **Name of Proposal.** Procurement of Ballistic Helmet (BH) with protection against 7.62 x 39mm Mild Steel Core (MSC) bullets.

2. **User Directorate in SHQ.** Directorate General of Infantry.

3. **Brief Description.** BH (based on GSQR 1319 of 2009) with protection against 9mm bullets have been inducted in service in lieu of Fibre Glass Helmets. With the threat of 7.62 x 39mm bullets to the troops, there is a need to induct BH with higher protection parameters.



4. **Operational Justification.** Existing threat along LC & LAC and CI/CT environment necessitates minimum protection against high-speed rifle bullets and blast fragments. While, maintaining the protection levels, critical parameters of weight and back face deformation on bullet impact also need factoring in for provisioning of an effective BH. In addition, there is a requirement to incorporate features to mount of Night vision devices, Visor and torches as required to augment operational capability of troops in operations.

5. **Approximate Quantity.** 80,000 (including 3,600 BH for RR troops).

6. **Technical Parameters.** Must provide protection from 7.62x39 mm MSC bullets at 10m and high-speed blast fragments. Must provide for tac side rails, shroud for attachment of additional equipment such as Night Vision Devices, Visor and Torch. The weight of complete BH must be 2 kg maximum for size Large. The design must be as per Advanced Combat Helmet/ Enhanced Combat Helmet. Communication headset for compatibility with in-service Radio set must be provided to be attached boltlessly with the BH. A Visor for each BH must be provided to protect against blast fragments/ splinters.

7. **Indigenous Content.** Minimum 50%.

8. **Additional Information.** Nil.

9. **Contact Details.** Colonel Amitoz Singh, SM  
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