

**INVITATION FOR EXPRESSION OF INTEREST FOR PROCUREMENT OF
BALLISTIC HELMET UNDER MAKE-II CATEGORY OF DAP-2020**

References : Defence Acquisition Procedure - 2020.

Appendices :

Appendix 'A'	:	Preliminary Service Qualitative Requirements
Appendix 'B'	:	Commercial Evaluation Criteria.
Appendix 'C'	:	Technical Evaluation Criteria.
Appendix 'D'	:	Correctness Certificate.
Appendix 'E'	:	Confidentiality Agreement.
Appendix 'F'	:	EoI Compliance Certificate.
Appendix 'G'	:	Information Performa

1. **Introduction.** Indian Army is authorised helmets to ensure safety and survival of troops in operations. For enhanced ballistic protection and better ergonomics for combat efficiency, Ballistic Helmets have been inducted in service in lieu of fibre glass helmets. However, IA troops deployed in conventional as well as Counter Insurgency/ Counter Terrorist (CI/CT) operations constantly face threat of rifle bullets and blast fragments from 7.62 mm Calibre weapons alongwith explosives. Thereby, need of enhanced protection for IA troops.

2. **Objective** The objective of this invitation of Expression of Interest (EoI) is to seek willingness of Indian Vendors to participate in the Make-II Project for procurement of Ballistic Helmet {Protection against 7.62x39 mm Mild Steel Core (MSC) bullets} under Make-II category of DAP-2020. Indian Vendors meeting the Technical, Commercial and Project Requirements laid out in the EoI will be issued a 'Project Sanction Order' to develop a prototype as per provisions of DAP-2020.

3. **Layout** The EoI has been covered under following parts:-

- (a) Part I : General Information.
- (b) Part II : Scope of the Project.

- (c) Part III : Evaluation Criteria.
- (d) Part IV : Procedure for submission of response to the EoI.
- (e) Part V : Miscellaneous.

4. The nodal officer for this project for all queries/ clarifications/ coordination will be the **Member Secretary, Project Facilitation Team (PFT)**, Ballistic Helmet (protection against 7.62x39 mm MSC bullets). Address and contact details of the nodal officer are given at **Paragraph 30 of the EoI**.

PART-I : GENERAL INFORMATION

- 5. **Nomenclature.** Ballistic Helmet.
- 6. **Categorisation.** 'In accordance with **Para 5 of Chapter-III of DAP-2020**'. The project shall be further categorised as under:-
 - (a) **Prototype Development Phase.** 'Make-II (Industry Funded)', in accordance with Para 5 (b) (i) of Chapter-III of DAP-2020.
 - (b) **Procurement Phase.** **Buy Indian (IDDM)** with min 50% IC, in accordance with Para 6 (d) of Chapter-III of DAP-2020'.
- 7. **Indigenous Content.** The product will be indigenously designed, developed and manufactured and should have minimum of 50 % Indigenous Content (IC).
- 8. **Quantities.** The quantities sought for the project are :-
 - (a) **Prototype Development Stage.** Following quantities of Ballistic Helmet will be provided at Prototype Development Stage :-

Serial No	Items	Quantity
(i)	Ballistic Helmet	17
(ii)	Communication Headsets	04

- (b) **Procurement Stage.** Quantity 80,000 BH (Normal Helmets – Quantity 35,956 and Commanders Helmet – Quantity 42,044).
- (c) Required technical literature to include user hand book, preservation instructions, complete equipment schedule, repair manual and technical manuals, be provided with the equipment during the procurement phase. Details will be further amplified in the Commercial Request for Proposal (RFP).

9. **Make-II Procedure.** Make-II Procedure is available at Chapter III of DAP-2020 and amendments thereto.
10. **Appreciated Timelines.** Tentative timelines for the project are as given at **Serial No 14.**

PART- II : SCOPE OF THE PROJECT

Ballistic Helmet

11. **Scope.** The deliverable BH will protect against high speed rifle bullets i.e. 7.62x39 mm Mild Steel Core (MSC) and blast fragments. The Commanders Helmet will include a communication headset assembly to enable compatibility with in-service radio sets of Infantry for handsfree communication. The BH must provide ergonomic stability during usage and enable mounting of Night vision devices on integrated shroud as well as utility accessories on tactical side rails.
12. **Preliminary Services Qualitative Requirements (PSQR) of the Proposed System.** PSQR 112 (aligned to DAP-2020) of BH is attached as **Appendix 'A'**.

Time Lines and Milestones

13. Stages of development and procurement are as per Chapter-III of DAP-2020 and amendments thereto.

14. **Timeline.**

- | | |
|--|--|
| (a) Prototype development | - 24 weeks (including conduct of Prototype Readiness Review) from the date of issue of Project Sanction Order. |
| (b) Production of 80,000 BH | - As stated in succeeding paras of EoI i.e. 14 (c) and 14 (d). |
| <p>(c) Considering operational necessities, it is important that total quantities of Ballistic Helmets are inducted at the earliest post development. Apropos, the instant proposal incorporates apportionment of supply between L1 and L2 vendors in accordance with Para 21 of Chapter III of DAP-2020. The splitting is in the ratio of 60:40 for L1 vendor and L2/ L3 vendor i.e. quantity 22,774 Normal Helmet and 25,227 Commanders Helmet for L1 vendor and quantity 15,182 Normal Helmet and quantity 16,817 Commander's Helmet for L2 vendor. L2 vendor must accept the price and terms & conditions in accordance with Para 21 of Chapter III of DAP-2020, incase L2 refuses to meet the price and terms & conditions quoted by L1 vendor, L3 vendor could be offered the same option to match L1 price and terms/conditions. Hence, if L2/ L3 accepts the price and terms and conditions, delivery timelines will be as under:-</p> | |

<u>Ser No</u>	<u>Time (in months)</u>	<u>Quantity</u>		<u>Remarks</u>
		<u>L1 Vendor (60%)</u>	<u>L2 Vendor (40%)</u>	
(aa)	Start D* + 06 Complete D + 12	15,000	15,000	*D is Date of Advance Payment after signing of Contract.
(ab)	Start D + 12 Complete D + 24	33,001	16,999	
Total		48,001 (22,774 Normal Helmet & 25,227 Commanders Helmet)	31,999 (15,182 Normal Helmet & 16,817 Commanders Helmet)	

(d) If L2 & L3 vendors do not agree to the prices and terms & conditions quoted by L1 vendor, the delivery timelines for L1 vendor will be as under

<u>Ser No</u>	<u>Time (in months)</u>	<u>Quantity</u>	<u>Remarks</u>
(aa)	Start D* + 06 Complete D + 12	15,000	*D is Date of Advance Payment after signing of Contract.
(ab)	Start D + 12 Complete D + 24	40,000	
(ac)	Start D + 24 Complete D + 30	25,000	
Total		80,000 (37,956 Normal Helmet and 42,044 Commanders Helmets)	

15. **Milestones.**

<u>Ser No</u>	<u>Activity</u>	<u>Remarks</u>	<u>Tentative Timelines (Cumulative Time in weeks)</u>
(a)	Issue of Eol	By Project Facilitation Team (PFT)	T ₀
(b)	Eol Responses Submission	By Eol respondents (Indian Vendors)	08 weeks T ₀ + 8
(c)	Eol Responses Evaluation	By PFT	06 weeks T ₀ + 14
(d)	Short listing of DAs and Issue of Project Sanction Order for Development of Prototype	To selected DAs, those meeting evaluation criteria	02 weeks T ₀ + 16

(e)	Design and Development of Prototype	(i) Design & Development of Prototype. (ii) Prototype Readiness Review by PFT to ensure matching of development of product as per PSQR. (iii) More than one review may be conducted, on required basis. Dates will be promulgated by the PFT, as per progress of the project	24 weeks $T_o + 40$
(f)	Single Stage Composite Trials, Ratification and Acceptance of Trial Report, Conversion of PSQRs to GSQRs, Issue of commercial RFP & Solicitation of Commercial Offers and conclusion of contract.	As per DAP-2020 and amendment thereto as applicable. Sequence of activity after development of prototype upto signing of contract will be amplified in the PSO.	-

Development of Prototype and Prototype Readiness Review

16. Prototype will be developed by the selected vendors after the issue of Project Sanction Order. Prototype Readiness Review by PFT to ensure matching of development of product as per PSQR will be carried out. All possible and reasonable assistance and any clarification related to functional or operational aspects of development as sought by DAs will be provided by Project Facilitation Team (PFT).

17. **Assistance to be Provided.** Assistance to Development Agencies (DAs) will be provided as feasible during the development process. Access to relevant in-service equipment for collection of data during the development phase will be facilitated by the PFT. Additional assistance if any will be solely at the discretion of the PFT. In case any damage occurring to equipment/ property/ personnel resulting from the testing of the job of private entity, the private entity is liable to bear the expenses of repair/ replacement of the facility and all necessary insurance coverage for the job shall be the responsibility of the private entity.

Solicitation of Commercial Offers

18. A commercial Request for Proposal (RFP) for 'Buy (Indian-IDDM)' phase would be issued to all DA(s) for soliciting their commercial offers. Sequence of activity after development of prototype upto signing of contract will be amplified in the PSO. **Additional technical information/ documentation, as may be necessary including those related to Indigenous Content and IPRs would also be required to be provided by the vendor prior to the issue of Commercial RFP (as applicable).**

Product Support

19. The project is envisaged to have the following product support deliverables:-

- (a) **Warranty.** The goods supplied shall carry a standard warranty for 24 months from the date of acceptance by JRI. Details will be further amplified in the Commercial Request for Proposal (RFP).
- (b) **Comprehensive Maintenance Contract (CMC).** An appropriate **Comprehensive Maintenance Contract (CMC) for three years** after two years warranty will be required for repair & maintenance of the equipment. Details will be further amplified in the Request for Proposal (RFP).

PART III : EVALUATION CRITERIA

Commercial Evaluation Criteria

20. EoI respondents will furnish their response to the Commercial Evaluation Criteria as per **Appendix 'B'**.

Technical Evaluation Compliance Matrix

- 21. The respondents to this EoI are required to furnish information and compliance/ information as per **Appendix 'C'** against PSQR of the equipment.
- 22. **Indigenous Content.** Indigenous Content of minimum 50% is to be achieved in accordance to provisions of DAP 2020 and amendments thereto.
- 23. **Additional Information.** Additional information required to be furnished as part of the EoI response is given at **Appendix 'G'**.
- 24. **Foreign Collaboration.** If the DA is collaborating/ plans to collaborate with a foreign technology provider, the nature of such collaboration and the technology areas being transferred must be stated in the response (please refer Para 12 of Appendix 'G').

PART-IV : PROCEDURE FOR SUBMISSION OF RESPONSE TO THE EoI

25. The response to the EoI shall be submitted as per formats given at **Appendix 'B'** to **Appendix 'G'**.

26. **Guidelines for Submitting EoI Responses.**

- (a) The responses should be submitted strictly as per the formats given in respective Appendices. Should a vendor need to mention any other information, a separate column / row may be added. Vendors should provide compliance or non-compliance to parameters and no conditional response/ compliance shall be submitted by the firm/ vendors.
- (b) All responses and Appendices should be submitted in a single file/ folder. Supporting documents / additional references should be submitted in a separate folder

with proper reference mentioned against each parameter / sub parameter in respective appendices.

(c) Any supporting document / evidence without any reference to specific parameter of criteria will not form part of the assessment.

(d) Conditional responses to any of the parameters are not acceptable and will be considered as Non-Compliant factor.

27. **Rejection Criteria for Selection as DAs.** The following may lead to rejection of Eol response :-

(a) Failure to meet Commercial Evaluation Criteria given at Appendix 'B'.

(b) Failure to meet/ comply with the Technical Evaluation Criteria Specifications given at **Appendix 'C'**.

(c) Failure to offer compliance to any of the terms and conditions given in the Eol.

(d) Failure to submit supporting documents and certificates as mentioned at **Appendix 'D'** to **Appendix 'G'** of the Eol.

(e) Any other parameter of the response considered inadequate by the MoD, Government of India.

28. **Foreclosure Criteria.** As per provisions of Para 20, Chapter-III of DAP-2020, no government funding is envisaged for prototype development, but there is an assurance of orders on successful development and trials of prototype. No foreclosure of the project will be done after issue of Project Sanction Order other than for reasons of default / non-adherence to Project Sanction Order by vendors or delay by DA to produce the prototype for trials.

29. The Eol respondent shall **submit three (03) copies** of response to the Eol, clearly marking one copy as '**Original Copy**' and second & third as '**Duplicate Copy and Triplicate Copy**' by **1600hrs on 14 Apr 2023**. In the event of any discrepancy between them, the original copy shall govern/ prevail. Each page of the response will bear the signatures of the authorised signatory of the company. The DA shall also submit a soft copy of the response to this Eol in a CD/ DVD.

30. **The Envelopes shall be Addressed as under :-**

Secretary, Project Facilitation Team
General Staff Branch/ Infantry-8,
Directorate General of Infantry,
Integrated HQ of MoD (Army)
Room No 403, 'D-1' Wing, Sena Bhawan
DHQ PO, New Delhi - 110011
Email id - suresh1234@nic.in
Tele No - 011-23012243

31. The responses to this Eol must be submitted at the above mentioned address.

32. The Company will be required to sign and honour the 'Confidentiality Agreement' with MoD Govt of India. The 'Confidentiality Agreement' will be furnished by each EoI respondent at the time of submission of EoI responses as per format given at **Appendix 'E'**.

PART-V : MISCELLANEOUS

33. **Pre EoI Responses Meeting** A pre-response meeting will be held on 21 Mar 2023 at 1500hrs at Infantry Directorate Conference Hall, Room No 407, D-1 Wing, Sena Bhawan, New Delhi. Vendors are required to **submit their queries / clarifications / amplifications in writing** to this office by **10 Mar 2023**.

34. Guidelines for penalties in business dealings with entities as promulgated by Government from time to time, will be applicable on procurement process & bidders.

35. The Pre-Contract Integrity Pact (PCIP), listed as detailed in Paragraph 92 of Chapter II of DAP-2020, shall apply mutatis mutandis to the 'Buy (Indian-IDDM)' phase of 'Make' project.

36. Respondents would be subject to disqualification if they make false, incorrect or misleading claims in their response to this EoI. A 'Correctness Certificate' as per the format at **Appendix 'D'** will be furnished as part of the response.

37. Please acknowledge the receipt of this invitation for EoI.

File No : C/31045/2/BH/Make-II/Inf-8 (FINSAS)

Dated 16 February 2023



Enclosures : Appendix 'A' to Appendix 'G'

(Praveen K Raghuvanshi)
Colonel
Secretary
Project Facilitation Team
Directorate General of Infantry
Infantry-8

Appendix 'A'
(Refer Para 12 of Eol)

**PRELIMINARY STAFF QUALITATIVE REQUIREMENT OF
BALLISTIC HELMETS**

User requirements as set out in this Qualitative Requirement represent attainable ideals as foreseen by the Ministry of Defence. If their realisation is likely to involve prolonged or extravagant development or if final production is likely to be unreasonably expensive and complex or it is difficult to maintain or use, it is requested that users be informed at the earliest possible date.

- | | | |
|-----|--|---|
| 1. | Reference to General Staff Policy Statement No | - 138. |
| 2. | Preliminary Staff Qualitative Requirement No | - 112 |
| 3. | Other previous PSQR No | - GSQR 1319. |
| 4. | Reference GSEPC Meeting | - 5 th (2022) meeting of
GSEPC dt 24 Jun 2022 |
| 5. | Sponsor Directorate File No | - C/31045/2/BH/Inf-8
(FINSAS). |
| 6. | Nomenclature | - Ballistic Helmet. |
| 7. | Security Classification | - RESTRICTED. |
| 8. | Priority for development | - EARLIEST. |
| 9. | PSQR Reviewed / Modified on | - 24 Jun 2022 |
| 10. | Next review due | - PSQR will be reviewed on
requirement basis. |
| 11. | GSQR/PSQR being superseded | - NA at this stage. |

INTRODUCTION AND OPERATIONAL PHILOSOPHY

12. **General.** There is a need to equip IA with Ballistic Helmets capable to protect soldiers from rifle bullets and blast fragments. This equipment will be used by troops during training and operations.

13. **Proposed Service Employment.** The proposed Ballistic Helmets will replace in-service Fibre Glass Helmets.

PART I - ESSENTIAL PARAMETERS

Operational Parameters

14. **Ballistic Resistance**. Provide equal protection throughout the covered area of helmet:-
 - (a) Against 7.62x39 mm MSC bullets at 710 ± 15 m/s from 10m.
 - (b) Against 1.1 grams, T37 shaped, fragment simulating projectile, the V_{50} value shall be ≥ 1000 m/s. Projectile hardness will be Rockwell C30 \pm 2.
15. **Trauma Level (Back Face Signature)**. Not more than 15 mm for minimum five randomly fired shots of bullets specified at Para 14 (a) of this document.
16. **Communication Headsets for Commanders Ballistic Helmet**. For use by Commanders and Radio Operators to enable hands free communication.
 - (a) Should be provided with a headphone/ ear-piece with microphone. Microphone, if provided separately, be attached with a flexible arm.
 - (b) Communication Headset be fitted inside the helmet and plug to connect to radio sets in-service with Infantry, while not impairing the normal hearing. The push to talk switch must be provided on the cable with a clip-on catch to fasten it on person.
17. **Operating Temperature**. Be able to operate between:-
 - (a) **Minimum**. Minus 20⁰C to Minus 10⁰C.
 - (b) **Maximum**. 40⁰C to 45⁰C

Technical Parameters

18. **Design**. As per Advanced Combat Helmet design. It should facilitate unhindered use of handset of communication radio, in-service Night vision devices, personal spectacles and respirators/ chemical hoods. It should be **bolt-free** design.
19. **Size and Weight**. Coverage Area of a medium size helmet shell (inner) will be minimum 1100 sq cm. The size (to fit the head sizes given below) and weight of complete helmet (excluding communication equipment and visor) be as under:-
 - (a) **Small size**. - 48 to 52 cms (Weight - Maximum 1.6 Kg).
 - (b) **Medium size**. - 52 to 57 cms (Weight - Maximum 1.7 Kg).
 - (c) **Large size**. - 57 to 62 cms (Weight - Maximum 1.8 Kg).
20. The Communication Headset assembly should not weigh more than 300 gms.

21. **Environmental Standards.** Latest version of the following specification are applicable for Communication Headsets:-

- (a) **For Earphone Capsule:** As per Specification of JSS 55400/401.
- (b) **For Microphone Capsule:** As per Specification of JSS 55320/321.
- (c) **For Complete Assembled Headset:** As per Specification of JSS 55430.
- (d) **Environmental Standards:** As per Table L-3 of JSS 55555:2012 (Rev-3) or latest.

Maintainability and Ergonomics Parameters

22. **Ergonomics.**

- (a) Comfortable to wear continuously for six hours in varied operating environments.
- (b) Should not hinder aiming during use of personal/ crew served weapons.
- (c) Inner padding to enable air circulation and mitigate heat retention.
- (d) Ease of quick adjustment and removal when required.
- (e) **Communication Headset & Microphone.** Be compact and rugged in nature. Be easy to attach and operate.

23. **Harness.** The harness should be provided with adjustable straps/ fasteners with multipoint support, comfortable chin cup, internal layer, hook disk and a complete pad set.

- (a) The harness should ensure NO WOBBLE of the Helmet during continued usage by providing 360° grip around the head.
- (b) Quick release mechanism to ensure ease of wearing, adjusting and removal of helmet even while wearing ECC gloves.

24. **Surface & Interiors.** Shell of Ballistic Helmets must have a matt finish. The padded interiors must be easily removable and easy to wash and dry. Material of pads & harness must be anti-bacterial & anti-fungal in nature. Material of pad covers and harness straps be of wicking nature and retard any kind of smell.

25. **Reversible Cloth Cover.** A reversible cloth cover must be provided to cover shell of the helmet. The pattern should be Indian Army Combat Uniform pattern with Desert Tan shade on reverse. The fabric must be flame retardant and water resistant. Patches of hook and loop fasteners be provided on the cover to enable attachment of accessories as desired.

26. **Carry Bag.** A carry bag be provided to enclose the helmet during transportation. Carry bag be provided with a zipper. Carry bag must be in same colour shade as helmet shell, be light weight and cushioned to ensure damage free handling during transportation. The fabric of carry bag must be water proof.

27. **Accessories.** Shroud and tactical side rails be provided to facilitate attachment of various accessories.
- (a) **Shroud.** Be fitted on front side of Helmet bolt-lessly and allow accommodating the interface of Night Vision devices.
- (b) **Tactical Side Rails.** Be provided on both sides of the Helmet to accommodate IR torch & Visor with appropriate mounting. Must conform to MIL STD 1913.
28. **Colour.** The complete Ballistic Helmet should be olive green in colour {PANTONE Number 18-0420 TPG (Four Leaf Clovers)}. Metal parts, if used, must be in same colour and coated or laminated with insulating material and be corrosion resistant. Harness and accessories such as tactical side rail and shroud must be in same colour as the shell or in Black colour.
29. **Service Life.** Eight years for Ballistic Helmet shell with pads and communication head set. Five years for all other components.
30. **Size Markings.** The size and manufacturer details to be marked by engraving/ laser etching on the inner side of the helmet and should not wear off with rough use.

PART II - DESIRABLE PARAMETERS

31. Weight of the complete Ballistic Helmet (excluding Communication Headset) be less than:-
- (a) 1.4 Kg (Size Small).
- (b) 1.5 Kg (Size Medium).
- (c) 1.6 Kg (Size Large).
32. **Back Face Signature.** Less than 13 mm within the constraints of essential weight parameters.

Appendix 'B'

(Refer Para 20 & 25 of EoI)

COMMERCIAL EVALUATION CRITERIA**Commercial Evaluation Criteria**

1. **Name of the Vendor.**
2. **Evaluation Criteria.**

<u>Ser No</u>	<u>Criteria</u>	<u>Vendor Submission</u>	<u>Remarks (if Any)</u>
(a)	Nature of the Company (refer Para 6(b) of Chapter III of DAP-2020)	Indian / Joint Venture	Supporting documents to be attached
(b)	Ownership status (refer Para 6 (b) of Chapter-III of DAP-2020)	Compliant / Non-Compliant	-do-
(c)	Category of Industry	Large / Medium / Small / Micro / OFB / Start Up/ Others	-do-
(d)	Registration Details {as applicable for ; MSMEs – Udyam Registration Certificate, Start Ups – DPIIT Certificate and Others – Registration Certificate (as applicable) }.	Yes / No	-do-
(e)	<u>Minimum average turnover for last three financial years from date of issue of EoI.</u> Minimum Average Annual Turnover for last 03 financial years, ending 31 st March of the previous financial year.	To be provided. _____ Cr.	-do-
(f)	Net worth of previous financial year ending 31 Mar 2021.	Positive / Negative	-do-
(g)	Defence Industrial License details.	Yes/ Applied for/ Being Applied for	-do-

Date :

Signature

Company Seal

Note :

1. All submissions must be on printed copy of Appendix as uploaded on MoD website and should be supported by referenced documents duly authenticated.
2. Any input with incorrect or missing reference will not assessed.

Appendix 'C'
(Refer Para 21 of Eol)

TECHNICAL EVALUATION CRITERIA

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
1.	Indigenous content will be minimum 50% as per DAP-2020	Compliant/ Non-Compliant	
2.	Indigenous design as per provision of DAP-2020	Compliant/ Non-Compliant	
3.	<u>Timelines</u>		
	(a) Development of prototype - 24 weeks.	Compliant/ Non-Compliant	
	(b) Delivery of items as per delivery schedule – 30 months	Compliant/ Non-Compliant	
4.	Confirmation of capability to develop and provide equipment to meet user requirements specified in Appendix 'A' (PSQR).	Compliant/ Non-Compliant	
5.	Proposed system configuration (broad design details).	Provided/ Not Provided	
6.	<u>Experience</u> . Min 01 year, experience in broad areas like manufacturing/ electronics/ explosive etc, as applicable in the instant case. If not, then cumulative experience of at least 02 years in above areas, resulting in gaining of competence for manufacturing the proposed product (Details of Existing manufacture related infrastructure/R&D/Quality control facilities to be provided).	Compliant/ Non-Compliant	Certificate for the same to be provided.
7.	Acceptance to all terms and conditions given in the Eol.	Compliant/ Non-Compliant	

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
<u>PSQR Requirements</u>			
8.	User requirements as set out in this Qualitative Requirement represent attainable ideals as foreseen by the Ministry of Defence. If their realisation is likely to involve prolonged or extravagant development or if final production is likely to be unreasonably expensive and complex or it is difficult to maintain or use, it is requested that users be informed at the earliest possible date.	Compliant/ Non Compliant	
9.	<u>General.</u> There is a need to equip IA with Ballistic Helmets capable to protect soldiers from rifle bullets and blast fragments. This equipment will be used by troops during training and operations.	Compliant/ Non Compliant	
10.	<u>Proposed Service Employment.</u> The proposed Ballistic Helmets will replace in-service Fibre Glass Helmets.	Compliant/ Non Compliant	
<u>PART-I ESSENTIAL PARAMETERS</u>			
<u>Operational Parameters</u>			
11.	<u>Ballistic Resistance.</u> Provide equal protection throughout the covered area of helmet:-	Compliant/ Non Compliant	
	(a) Against 7.62x39 mm MSC bullets at 710 ± 15 m/s from 10m.	Compliant/ Non Compliant	
	(b) Against 1.1 grams, T37 shaped, fragment simulating projectile, the V_{50} value shall be ≥ 1000 m/s. Projectile hardness will be Rockwell C30 \pm 2.	Compliant/ Non Compliant	
12.	<u>Trauma Level (Back Face Signature).</u> Not more than 15 mm for minimum five randomly fired shots of bullets specified at Para 14 (a) of this document.	Compliant/ Non Compliant	
13.	<u>Communication Headsets for Commanders Ballistic Helmet.</u> For use by Commanders and Radio Operators to enable hands free communication.	Compliant/ Non Compliant	
	(a) Should be provided with a headphone/ ear-piece with microphone. Microphone, if provided separately, be attached with a flexible arm.	Compliant/ Non Compliant	

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
	(b) Communication Headset be fitted inside the helmet and plug to connect to radio sets in-service with Infantry, while not impairing the normal hearing. The push to talk switch must be provided on the cable with a clip-on catch to fasten it on person.	Compliant/ Non Compliant	
14.	<u>Operating Temperature.</u> Be able to operate between:-	Compliant/ Non Compliant	
	(a) <u>Minimum.</u> Minus 20 ⁰ C to Minus 10 ⁰ C.	Compliant/ Non Compliant	
	(b) <u>Maximum.</u> 40 ⁰ C to 45 ⁰ C.	Compliant/ Non Compliant	
15.	<u>Design.</u> As per Advanced Combat Helmet design. It should facilitate unhindered use of handset of communication radio, in-service Night vision devices, personal spectacles and respirators/ chemical hoods. It should be bolt-free design.		
16.	<u>Size and Weight.</u> Coverage Area of a medium size helmet shell (inner) will be minimum 1100 sq cm. The size (to fit the head sizes given below) and weight of complete helmet (excluding communication equipment and visor) be as under:-	Compliant/Non-Compliant	
	(a) <u>Small size.</u> - 48 to 52 cms (Weight - Maximum 1.6 Kg).	Compliant/Non-Compliant	
	(b) <u>Medium size.</u> - 52 to 57 cms (Weight - Maximum 1.7 Kg).	Compliant/Non-Compliant	
	(c) <u>Large size.</u> - 57 to 62 cms (Weight - Maximum 1.8 Kg).	Compliant/Non-Compliant	
17.	The Communication Headset assembly should not weigh more than 300 gms.	Compliant/Non-Compliant	
18.	<u>Environmental Standards.</u> Latest version of the following specification are applicable for Communication Headsets:-	Compliant/Non-Compliant	
	(a) <u>For Earphone Capsule:</u> As per Specification of JSS 55400/401.	Compliant/Non-Compliant	
	(b) <u>For Microphone Capsule:</u> As per Specification of JSS 55320/321.	Compliant/Non-Compliant	
	(c) <u>For Complete Assembled Headset:</u> As per Specification of JSS 55430.	Compliant/Non-Compliant	
	(d) <u>Environmental Standards:</u> As per Table L-3 of JSS 55555:2012 (Rev-3) or latest.	Compliant/Non-Compliant	

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
<u>Maintainability and Ergonomics Parameters</u>			
19.	<u>Ergonomics.</u>		
	(a) Comfortable to wear continuously for six hours in varied operating environments.	Compliant/Non-Compliant	
	(b) Should not hinder aiming during use of personal/ crew served weapons.	Compliant/Non-Compliant	
	(c) Inner padding to enable air circulation and mitigate heat retention.	Compliant/Non-Compliant	
	(d) Ease of quick adjustment and removal when required.	Compliant/Non-Compliant	
	(e) <u>Communication Headset & Microphone.</u> Be compact and rugged in nature. Be easy to attach and operate.	Compliant/Non-Compliant	
20.	<u>Harness.</u> The harness should be provided with adjustable straps/ fasteners with multipoint support, comfortable chin cup, internal layer, hook disk and a complete pad set.	Compliant/Non-Compliant	
	(a) The harness should ensure NO WOBBLE of the Helmet during continued usage by providing 360° grip around the head.	Compliant/Non-Compliant	
	(b) Quick release mechanism to ensure ease of wearing, adjusting and removal of helmet even while wearing ECC gloves.	Compliant/Non-Compliant	
21.	<u>Surface & Interiors.</u> Shell of Ballistic Helmets must have a matt finish. The padded interiors must be easily removable and easy to wash and dry. Material of pads & harness must be anti-bacterial & anti-fungal in nature. Material of pad covers and harness straps be of wicking nature and retard any kind of smell.	Compliant/Non-Compliant	

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
22.	<u>Reversible Cloth Cover.</u> A reversible cloth cover must be provided to cover shell of the helmet. The pattern should be Indian Army Combat Uniform pattern with Desert Tan shade on reverse. The fabric must be flame retardant and water resistant. Patches of hook and loop fasteners be provided on the cover to enable attachment of accessories as desired.	Compliant/ Non Compliant	
23.	<u>Carry Bag.</u> A carry bag be provided to enclose the helmet during transportation. Carry bag be provided with a zipper. Carry bag must be in same colour shade as helmet shell, be light weight and cushioned to ensure damage free handling during transportation. The fabric of carry bag must be water proof.	Compliant/ Non Compliant	
24.	<u>Accessories.</u> Shroud and tactical side rails be provided to facilitate attachment of various accessories	Compliant/ Non Compliant	
	(a) <u>Shroud.</u> Be fitted on front side of Helmet bolt-lessly and allow accommodating the interface of Night Vision devices.	Compliant/ Non Compliant	
	(b) <u>Tactical Side Rails.</u> Be provided on both sides of the Helmet to accommodate IR torch & Visor with appropriate mounting. Must conform to MIL STD 1913.	Compliant/ Non Compliant	
25.	<u>Colour.</u> The complete Ballistic Helmet should be olive green in colour {PANTONE Number 18-0420 TPG (Four Leaf Clovers)}. Metal parts, if used, must be in same colour and coated or laminated with insulating material and be corrosion resistant. Harness and accessories such as tactical side rail and shroud must be in same colour as the shell or in Black colour.	Compliant/ Non Compliant	

<u>Ser No</u>	<u>Criteria and Sub Criteria</u>	<u>Vendor Response</u>	<u>Remarks (if Any)</u>
26.	<u>Service Life.</u> Eight years for Ballistic Helmet shell with pads and communication head set. Five years for all other components.	Compliant/ Non Compliant	
27.	<u>Size Markings.</u> The size and manufacturer details to be marked by engraving/ laser etching on the inner side of the helmet and should	Compliant/ Non Compliant	
<u>PART II - DESIRABLE PARAMETERS</u>			
28.	Weight of the complete Ballistic Helmet (excluding Communication Headset) be less than:-	Compliant/ Non Compliant	
	(a) 1.4 Kg (Size Small).	Compliant/ Non Compliant	
	(b) 1.5 Kg (Size Medium).	Compliant/ Non Compliant	
	(c) 1.6 Kg (Size Large).	Compliant/ Non Compliant	
29.	<u>Back Face Signature.</u> Less than 13 mm within the constraints of essential weight parameters.	Compliant/ Non Compliant	
30.	<u>Compliance Certificate</u>		
	(a) Correctness Certificate (As per Appendix 'D')	Compliant/ Non Compliant	
	(b) Confidentiality Agreement (As per Appendix 'E')	Compliant/ Non Compliant	
	(c) EoI Compliance Certificate (As per Appendix 'F')	Compliant/ Non Compliant	

Station :

Signature

Company Seal

Date:

Note :

1. All submissions must be on printed copy of Appendix as uploaded on MoD website and should be supported by referenced documents duly authenticated.
2. Any input with incorrect or missing reference will not assessed.
3. Conditional responses to any of the parameters are not acceptable and will be considered as Non-Compliant factor.

Appendix 'D'
(Refer Para 25, 27(d) &
36 of EoI)

CORRECTNESS CERTIFICATE

It is certified that information submitted in the documents as part of the response to Expression of Interest for the project of Ballistic Helmets is correct and complete in all respects. It is acknowledged that the company will be disqualified from further participation if any information provided is found to be incorrect.

(Signature with Company Seal)

Note : -

1. All submissions must be on printed copy of Appendix as uploaded on MoD website and should be supported by referenced documents duly authenticated.
2. Any input with incorrect or missing reference will not assessed.

Appendix 'E'
(Refer Para 25, 27(d) &
32 of Eol)

CONFIDENTIALITY AGREEMENT

1. It is certified that Expression of Interest document for project of Ballistic Helmets will not be shared with any agency in part or full. Only relevant details, as applicable, will be shared with technology partners including foreign technology partners. However, the Eol document itself will not be shared with any technology partners.
2. The company understands the security sensitivity of such an operational system and any information pertaining to deployment and usage of the system including system scaling will not be discussed with third party without a written permission from the Project Facilitation Team. The company understands that failure to observe this agreement will lead to disqualification from the project.

(Signature with Company Seal)

Appendix 'F'

(Refers to Para 25 & 27(d) of Eol)

Eol COMPLIANCE CERTIFICATE

It is certified that all the aspects mentioned in the Expression of Interest for the procurement of Ballistic Helmets are being complied to. It is acknowledged that the company will be disqualified from further participation if any aspect mentioned in Expression of Interest is not complied with.

(Signature with Company Seal)

Note : -

1. All submissions must be on printed copy of Appendix as uploaded on MoD website and should be supported by referenced documents duly authenticated.
2. Any input with incorrect or missing reference will not assessed.

INFORMATION PERFORMA

1. Name of the Company.
2. Name of CEO with Designation.
3. Address of the Registered Office.
4. Address of the Factory / Factories.
5. Company Website(s).
6. Date of Incorporation.
7. Brief History of the Company.
8. Category of Industry (Large / Medium / Small / Micro).
9. Nature of Company (Public Limited/ Private Limited).
10. Nature of Business (Manufacture / Trader / Sole selling or Authorised Agent/ Dealer / Assembler / Processor / Re packer/ Service Provider). Please give broad product range as applicable
11. Details of Current Products :-
 - (a) Type / Description.
 - (b) Licensed / Installed Capacity.
 - (c) Annual Production for Preceding 3 Years.
12. Details of Foreign Collaborations if any planned for execution of project.
13. Technology Received from abroad and assimilated / planned for execution of project.
14. Products Already Supplied :-
 - (a) To Indian Army / Air Force / Navy.
 - (b) PSUs.
 - (c) DRDO and its Laboratories.
 - (d) Ordnance Factories.

- (e) Any other Defence Organisation.
 - (f) To other Principal Customers.
15. Details of Developmental Facilities :-
- (a) R&D Facilities Available.
 - (b) Number of Technical Manpower.
 - (c) Percentage of Total Turn-Over Spent on R&D during the Last Three Years.
16. Turnover during the last Three financial Years.
17. Any other relevant information.
18. Contact Details of the Executive nominated to co-ordinate with the Assessment Team (Please provide telephone, mobile and e-mail address).
19. Assistance required from Service Headquarter during prototype development stage.

Station :

Signature

Company Seal

Date :