

Minutes of Pre-Bid Meeting held on 03.03.2021 for T.No. 03195018A for TRI-NETRA

RDSO Remarks on the Pre-bid Query of TRI-NETRA Bidders

S.N.	Document Reference with Clause no.	Query Raised by Firm	RDSO Remarks/Clarification
Query raised by M/s Optimized Electrotech Pvt Ltd.			
1.		We, Optimized Electrotech are an Indian manufacturer for Electro Optic Surveillance Systems and are very much interested to take part in your above reference Tender for the Development of Tri-Netra device.	Noted.
2.		We have all the expertise and infrastructure available here in India at Bangalore only which enable us to make it possible to Design, Develop and Manufacture Indigenously (IDDM) and can also support with maximum Indigenous content which will be sufficient to comply us for Class 1 supplier.	Noted.
3.		We have Defence Manufacturing License and our facility was evaluated by 515 Army Base Workshop.	Noted.
4.		Our Founding team has relevant expertise in the field of Electro Optics and having a vast experience in ISRO, HAL, Texas Instruments, Philips and Motorola. And we have registered 32+ patent and 20 Research publications in the field of Electro Optics which it self proves our expertise.	Noted.

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5.		With all these our expertise we have managed to win two defence challenges in iDEX DISC 1 and DISC2. For both these challenges we were evaluated by DPSUs and relevant authorities from Defence. DISC1 was for the development of UAV Payload System for Long Range which was given by Indian Airforce and DISC 2 which was just awarded to us during Aero India 2021 event for the Development of Foliage Penetration System and it was given by Infantry. These both the systems has very high end applications and matching to your required device for Tri-Netra.	Noted.
6.		We have supplied Infrared as well as special category camera to Indian Army and Indian Railways also. For Indian Army we have developed Artificial Intelligence enabled Human Intrusion detection System and for Indian Railways we have supplied Thermal Screening Solutions and Installed them at NCR, WR, and ECOR.	Noted.
7.		We also have received a PSO for the development of AGS 30 Thermal Gun Sights.	Noted.
8.		We are sure our Indigenous Systems shall meet your requirements.	No comments.
9.		During our previous Pre-Bid meeting it was observed by us that most of the firms are dependent on foreign OEMs only. These will leads to long after sales service time same as what our Defence forces were facing till now.	No comments.
10.		Your clause “Special Eligibility Criteria” restricts us to take part in this tender. So it is our humble request to please remove such clause as now Indian Firms are getting developed and having such expertise to develop this kind of systems in India only.	We appreciate efforts and progress made by your start-up in the field of electro-optics. However, eligibility criteria have already been relaxed to a larger extent. Further it is informed that this is pertaining to safety of trains and only a Proof-of concept tender. Therefore, at present we need firms

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			having minimum experience and past performance in the field of technologies mentioned in the Tri-netra specification. After the proof of concept, final specification for the product will be released and thereafter process of multi-sourcing will be initiated.
11.		Requesting you to please do consider it as our formal request and please publish a corrigendum so we can participate in this tender.	Same as clause 10 above.
Query raised by M/s Tooltech Global Engineering Pvt. Ltd.			
12.	Special Eligibility Criteria - 1	<p>Referring to previous tender 03195018, which reads on the eligibility “Have tried out the system having functionality of infrared imaging or range detection up to 1 km on a train in dynamic condition in one of Railway Systems of the World”.</p> <ul style="list-style-type: none"> Why this clause has been removed? <p>It is a serious and important clause on qualify. We would like to request to bring on the clause for giving equal opportunity to all technology providers-cum-bidders. Reproduced below.</p>	<p>Eligibility criteria has been deliberated upon in a great detail and after due consideration it has been modified, considering following grounds:</p> <p>a) Mere mentioning of the word “tried out” doesn’t necessarily mean the success of the trial and therefore, in order to introduce an element of objectivity, this word was removed and objective and verifiable parameters were introduced.</p> <p>b) Criterion to be based on successful achievement of some physical parameter. Eligibility criteria should be clear, definite and to be adjudged on the success of trial. Further, no known Imaging/Range Detection system has been successfully tried out or</p>

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		<p>"Tenderers must have supplied, installed and commissioned 15 Unit devices having capability of display and detection range of 1.0 km in and night conditions, in last 5 years and current financial year customers operating aircraft / helicopters/ rolling stock/ ships/Autonom vehicles/Remote sensing applications. Tenderer shall submit the con documents along with its technical specification/details, supply de [Proof of supply and copy of purchase order/invoice] and inspec certificate for above supplied systems." OR "Have tried out the sys having functionality of infrared imaging or range detection up to 1 km train in dynamic condition in one of Railway Systems of the W Relevant documentary evidence regarding the trial shall be submitte the tenderer along with e-offer." Note: Name & address of the Organiza along with details of Contact person (Name, Designation, Mobile no., e id), to which 15 units have been supplied/in which trial has been carried should also be furnished alongwith with the e-offer.</p>	<p>proven on Indian Railways or in any other Railway System, to the best of information available with RDSO. So, hardly any firm is likely to meet the criteria of successful trial. On the contrary, such type of clause can cause confusion during evaluation of credentials, as brought out below.</p> <p>c) Insufficiency of documents pertaining to trial: For evaluation of credentials, submission of proper documentary proof regarding fulfilment of the laid down criteria is necessary. However, it is generally observed that for demonstration trials, which are not conducted against a formal purchase order, proper documentary proofs are not available. -</p> <p>d) Also, in case any supplied system has been proven then the real usage of that system shall be properly judged if at least few numbers (say 5) have been supplied and commissioned, which is already taken into account in the revised main technical eligibility criteria (requirement of 15 sets reduced to 5)</p>
13.	NIT Payment	<p>We have conducted multiple trials already and presented to all concerned authorities. Results are very well accepted and appreciated by PICs (Person-in-Charge) in writing as well. Since it is an uniquely developed product for Indian Railways by Indian Engineers with technological guidance from Finnish Scholars in the domain. So, how the eligibility of 5sets anywhere is drawing attention; not the trials carried out by very own RDSO and the Indian Firms..</p> <p>Referring to 14.0 Splitting of Order, This is a developmental item. To evaluate and have the benefit of development by various sources, RDSO intends to</p>	<p>Not a query. Clause no 14 of special conditions of tender is self explanatory.</p>

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	Terms	place order on multiple firms and hence reserves the right to give counter offer at the rates of lowest technically suitable offer to other technically suitable tenderers and place the split orders accordingly.	
		<ul style="list-style-type: none"> How many units to be supplied in Prototype? 01 Units or 01 Set (02 units)? 	One set is to be supplied for prototype testing.
		<p>As per the latest notification from Ministry, the PBG (Performance Bank Guarantee) is fixed at 3%.</p> <p>6.2 The warranty period shall be for 24 months as per Special Conditions and the CAMC Warranty is for 5 years; beyond 24 months. Hence, what is the PBG period:</p> <ul style="list-style-type: none"> * 12 months - As per Prototype trial? * 24 months - As per Tender? * 7 years - As per CAMC? 	Please refer to heading 'Payment Terms' under clause no 3 T & C (page 2 of 6 of NIT) and heading 'General Instructions' under clause no. 5 Compliance Conditions (page 4 of 6 of NIT) and clause no 9.4 of SCT (special conditions of tender). Please also refer Clause 0500 Security Deposit of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I) attached with Tender Document .
		<p>As per tender, 5 sets to be procured; being the product spec is "For Proof of Concept Trials only";</p> <ul style="list-style-type: none"> * how many firms would be given a go-ahead? 	Kindly refer to clause 14 of Special Conditions of Tender
		<ul style="list-style-type: none"> * If single firm, How many units to be supplied after Prototype approval? * If multiple firms, How many units to be supplied after Prototype approval by each? 	<p>If order on single firm is placed, it is obvious firm has to supply the balance quantity after approval of one prototype system.</p> <p>In case of multi sourcing, quantity depends on the number of suppliers on whom orders are finally placed.</p>
14.	Special Eligibility	We request you to consider the revision in the eligibility w.r.t. our points above.	Kindly refer remarks against point no.10 & 12 above.

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	Criteria -2	<ul style="list-style-type: none"> How do we show proof of 12 years of work done in India and abroad, just because packaging is abroad for the prototype? 	It is for the bidder to submit a tangible and verifiable proof of their credentials along with their offer, in the manner which they desire unless otherwise asked to submit in the specified format mentioned in the tender conditions.
15.	Special Eligibility Criteria - 3	<p>Annexure-4 reads as, Specification No. RDSO/SPN/201/2010, Ver. 2.0 FogPASS</p> <p>Kindly share the required format.</p> <p>The definitions of OEM/Supplier/systems Integrator are very rigid for a collaborative development, as we have done. We request you to consider us as Local manufacturer with 100 subsidiaries in Finland.</p>	<p>Annexure 4 of specification pertains to Specification of FogPASS.</p> <p>Format of Annexure 4 (PROFORMA FOR AUTHORITY FROM MANUFACTURERS) is provided at page no 35 of Instructions to tenderers and general conditions of tender(Bid document, Part-I Section-I).</p> <p>Further, regarding local supplier, kindly refer to 2nd table on Page 5 of NIT and Clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I) attached with Tender Document .</p>
16.	Special Eligibility Criteria - 4	This previously issued tender vide No. 03195018 is a discharged one; and is being re-issued, whose original tender closed on 02/03/2020, months before the Make in India notification. Accordingly this stipulation should not be put. We request, to save rigour to bidders, all technically qualified bidders or all previous submissions that were Ok, the start point for old bidders, should be where the process left off. In this case it would mean only the changes between the tenders, be highlighted clearly.	The terms & conditions of the extant tender is in line with latest instructions of Rly. Board on the matter of Public Procurement of Goods. Terms and conditions of previous tender case are not relevant for this tender. Kindly go through the present Tender Documents to avoid any ambiguity on any matter related to present tender case.
Kindly 17.	Commercial-Compliance	This is a proof of concept, development order, probably being issued to several parties at 2 or 4 or 6 numbers each.	In regard to Make in India policy, extant Instructions of Government of India are being followed. Please refer Clause 1401 of Instructions to tenderers and

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		This is not a factory production quantity. It would be fair to take an undertaking that regular supplies will be under Make in India conditions, so that, only the tested systems are procured for solving the loco-pilot problem.	general conditions of tender (Bid document, Part-I Section-I) attached with Tender Document .
18.	NIT Page-5	Software, Patches, Simulation, Concept testing, Field Trial are all done in India/ by Indians and it has merged. Only proof is in the proportion of value. 100 total cost can be shown as X Rupee cost and Y fx cost. There is no benchmark or minimum benchmark declared to examine price performance ratio. Specifications in themselves do not assure performance, they assure compliance.	All instructions related to Make in India Policy as notified by the Gol are incorporated in Clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I) attached with Tender Document .
19.	Special Conditions 7.0 Item is required for research	As the tender rightly specifies this as an item for Research and the prototyping and packaging is being done in Finland. So, the eligibility and evaluation has to be accordingly. Also w.r.t. Book Examination clause, kindly issue us Certificate for GST and Custom Duty exemption. Exemption of Customs Duty etc. are easiest if consignment is point to point, Subsidiary to railways.	Clause 7.0 of Special Conditions of Tender is itself clear. Necessary certificate in this regard shall be issued after placement of Contract on firm's request by the Motive Power Directorate of RDSO. Please also refer Clause 3300 of Instructions to tenderers and general conditions of tender (Bid document Part-I Section-I).
20.	15.0 Joint Venture	100% foreign subsidiary of an Indian company is nothing but a branch and is regulated by RBI and if for logistics reasons, the Invoicing is done from the foreign subsidiary, it must be considered as Indian, which it is, as its ownership, control are in India. Also our research partner has been the driving force for this Indian Railways programme since 2010. Our team below is well accepted; lead by Tooltech Global Engineering: * Tooltech Global Engineering -System Integrator * Tooltech Europe Oy, a 100% subsidiary, in association with technology partner VTT of Finland.	As per Make in India Policy of Gol, parameters which can be taken into account to consider a firm as 'Class-I/Class-II/Non-Local supplier' have already been discussed in Clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I).
21.	NIT Page-6	Even though our local value is more than 60% as desired by the Make In India norms, however Govt. of India has	The subject tender has been floated as 'Indigenous Open Tender' as per instructions issued by Gol under

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		expressively and routinely accepts the procurement of items under Global tender as the technology is not available in India, the Notification from the Ministry on Relaxation on Global Tender Enquiry (GTE) under Rule 161(iv) of General Financial Rules (GFRs) 2017 as well as an example of issuing to PSU are attached.	Make in India Policy. Please refer Clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I)
22.	NIT Page-4 Special Conditions	Referring to the Bids filed for tender no 03195018 is a discharged one; and is being re-issued, whose original tender was published on 11/09/2019 and is closed on 02/03/2020. <input type="checkbox"/> Are all the bidders are technically qualified? <input type="checkbox"/> What is the status of technical evaluation of this tender? <input type="checkbox"/> How the Make-in-India clause is assessed?	Queries are not relevant to this tender. For Make in India, Please refer clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-1).
23.	NIT Page-5	Roll-out plan:	
		<input type="checkbox"/> How firms will set-up an exclusive product line for this critical safety device for 5 sets?	Tenderer has to meet the requirements laid down in the tender
		<input type="checkbox"/> What is the quantity will be procured after the prototype? <input type="checkbox"/> What is the timeline for the implementation?	Decision in this regard shall be taken after completion of proof of concept trials.
		<input type="checkbox"/> As we have seen tender and specs for this system has been releasing every year without result. When this will end? <input type="checkbox"/> Why the industry has to bear the loss continuously on putting Research and Development? What will be the relaxation to firms on R&D?	No comments
24.		Office Memorandum of Ministry of Finance, Department of Expenditure, Procurement and policy division dtd. 29.10.2020, 18.11.2020 and 15.05.2020 are attached. Also Ministry of Heavy Industries &Public Enterprise 20.11.2020 are attached.	Noted.

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Query raised by M/s ELTA SYSTEMS LTD.			
25.		Intro: a. ELTA is ready to demonstrate its capabilities, especially with the state-of-the-art Radar for all-visibility detection	Noted.
26.		Tender response submission date: a. Due to major modification in tender conditions (from “Global “ to “Indigenous”) , we request for a schedule update to allow us to finalize the business framework with the selected India partner. For that we request a delay to 20th of April 2021 of tender response submission.	Tender Closing Due Date has been extended from 25.03.2021 to 23.04.2021.
27.		Questions on the tender process: a. How many suppliers are to be awarded the tender?	Kindly refer to remarks against point no 13 above.
		b. What is the criteria for tender award (technical/financial proposal weights)?	It is a two packet tender. First, technical bid will be opened and techno-commercial evaluation will be done as per eligibility criteria and other conditions of the tender. Thereafter, financial bid of all techno-commercially suitable offer will be opened to discover the lowest technically suitable bid.
		c. How long after submission the tender is awarded?	It may take approx. 2 to 4 months, in normal circumstances. However, it cannot be committed at this stage.
28.		Questions on spec: a. Distance coverage performance requirement for	Individual technologies will be tested and evaluated statistically in the clear weather, mild to dense and

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		<p>system level (and not per individual sensor) :</p> <ul style="list-style-type: none"> i. The distance requirements in spec are provided separately for Ranging device (radar) and camera device - each one with its own values ii. The overall system success criteria should define OR between the both , since this provides the early warning functionality , i.e. if radar provides the warning while optics are “blind” - it is still considered as a functional system and vice versa. 	<p>extreme to dense fog regime as per clause no. 4.1, 4.1.4 & 4.1.5 of the Trinetra specification.</p> <p>For statistical evaluation, Benchmark Minimum Naked Eye visibility (BMNEV) will be taken as Maximum value out of minimum naked eye visibilities (MNEV’s) observed during the functional trials by prototypes of different vendors in one fog season. However, BMNEV shall not be more than 25 meter. Thus, each prototype shall be tested till such time functional trial data points for Naked eye visibility between 25 meter and BMNEV are observed/recorded.</p> <p>Data points for the naked eye visibilities less than BMNEV will not be considered.</p>
29.		<p>b. Testing :</p> <ul style="list-style-type: none"> i. In spec defined 4 phases - <ul style="list-style-type: none"> 1. in firm’s premises - including certification and performance tests 2. fitment tests - after installation on loco 3. Functional tests - on test tracks 4. Field tests - for 13 month ii. Phase 1: Certification tests - ELTA has vast environmental testing facilities -and we plan to test the prototype in our facilities. Firm declaration on tested compatibility will be provided. Can this para be updated in the spec to include the same? iii. Phase 2: Fitment test - what it includes? Who is responsible for design and manufacture of mounting plate for the loco to locate the sensors? When is the earliest that loco survey can be performed? If firm is responsible for this, 3D model 	<ul style="list-style-type: none"> i. Noted ii. Kindly refer clause no. 9.1.1 of the Trinetra specification. However, it is clarified that firm should have all the facilities required to carry out tests as per the reference standards mentioned in Annexure 2(A) iii. Fitment test details are placed at Annexure 2(B) of the spec. Responsibility lies with the firm for design and manufacturing of mountings and for locating the sensors. For this, loco can be visited by the firm any time after award of the PO as per clause

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		<p>of the loco is required.</p> <p>iv. Phase 3: How functional tests are to be performed? Multiple repetitions of same test are required because success criteria are defined statistically in the spec. Will there be fixed test tracks , planted obstacles ? What is the planned duration ? We need to have a procedure document for the test plan</p> <p>v. Phase 4 : Field tests - 13 months of non-supervised usage of the system. What evaluation methods will be used during this time. How can the firm verify it is a controllable and accurate process ? What data the firm will be able to access during this period?</p> <p>Important Note: keeping us in loop and giving us access to data, both good and bad, will allow us to upgrade and improve performance over time of the field tests.</p>	<p>no. 6.18 of the specification. 3D model of the loco, if available, may be provided after award of the PO.</p> <p>iv. Please refer clause 9.1.3 and Annexure 2(C) of Trinetra specifications. Same tests shall be repeated multiple times to collect sufficient data for statistical analysis. Functional tests shall be as per details at Annexure 2(c) of the spec. Simulated objects may be used as visibility/detection targets.</p> <p>It is planned to carry out the Tests in an identified section with dedicated Loco. Functional tests shall be performed mainly in foggy weather conditions during winter season from December to February months of the year. Specific test schedule will depends upon the availability of the foggy conditions, availability of loco and operating conditions.</p> <p>v. Field tests will be performed under actual operating conditions of the loco. During the trial, Reliability and Maintainability of the system shall be monitored and it will be assessed for other potential advantages and usage for operation.</p> <p>Format for field trials performance is given below as Annexure (i).</p>
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30.		c. There is a requirement to alert signals and posts based on their GPS location. for that RDSO attached spec of totally different and separate system (FogPass) and required compliance. In response to comments on the spec, RDSO responded that only “ a spirit” of the attached spec is to be kept. To avoid subjective interpretation of this “spirit” by different firms, we suggest that exact requirements are implicitly elaborated.	Please refer given below Annexure-(ii) for interpretation of “broad functionality” mentioned in clause 4.2 of the Trinetra specification .
31.		d. Gps data of rail tracks and landmarks (incl. different infrastructure objects) shall be provided by RDSO. Format of data is needed ASAP. Schedule of full data delivery is also important - the sooner the better.	GPS data and format will be provided by RDSO after award of the Purchase Order to the firm.
32.		As per our understanding based on discussions from time to time and the parameters laid out in the bid document, our understanding of the tender type as “Indigenous Open” is that a foreign company having a business partner in India, can be prime bidder provided it bids in the currency of INR including for the Comprehensive Annual production and maintenance contract and deploys at least 20% of value addition on Indian soil since this technology is not yet available in India.	<p>Bid has to be quoted in INR only.</p> <p>As per Make in India Policy of Gol, parameters which can be taken into account to consider a firm as ‘Class-I/Class-II/Non-Local supplier’ have already been discussed in Clause 1401 of Instructions to tenderers and general conditions of tender (Bid document, Part-I Section-I). Please refer the same and Clause 15 of SCT for further details.</p>
33.		In view of the above, please confirm if Elta Systems LTD, Israel, can be the prime bidder for this current tender with a local Indian partner.	Please refer to reply given at Point no. 32 above.
34.		Assuming Elta Systems LTD will team with a local	

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		<p>company, can Elta Systems answer by itself the following request in the 1st Eligibility Condition and in Annexure G:</p> <p>“Tenderer himself or OEM/System Integrator (in case tenderer authorized by OEM/System Integrator quoting the bid on behalf of OEM/System Integrator) must have supplied & commissioned 5 sets of devices for application in Aircrafts/ Helicopters/ Rolling stocks / Ships/Automobiles/ Aerial Remote sensing, during period beginning from 2015-16 and up to tender opening date having following capability: ----- "Imaging of object at a distance of minimum 1.0 Km in day or night conditions during normal or foggy weather. "----- OR-----</p> <p>- "Detection and ranging of object at a distance of minimum 1.0 Km in day or night conditions during normal or foggy weather”</p>	<p>Kindly refer point no. 5 of tender document under heading Eligibility Condition (Page No. 3 of tender document). However, it is again reiterated that the eligibility criteria have to be fulfilled either by the tenderer or by the OEM/System Integrator (if the tenderer is quoting under authorisation of an OEM/System Integrator).</p>
Query raised by M/s Tata Advanced Systems			
35.	clause 4 of Special Conditions of Tender	<p>About Delivery schedule (of clause 4 Special Conditions of Tender :</p> <ul style="list-style-type: none"> - Better to do the IEC 60571 prototype testing after field trail to save the delivery time and firm will get some to test functionality in factory as because of developmental order. <p><i>Flow of project execution :</i></p> <p>>> <i>Internal unit/functional testing >> RDSO FAT at factory >> field installation unit/functional testing >> field trials unit/functional testing >> RDSO field approval >> IEC 60571 testing.</i></p>	<p>If the functional tests are conducted prior to environmental test, found to be successful and subsequently in case prototype fails in environmental tests, then functional trials will have to be conducted again which will not only result in delays but also cause wastage of precious resources. Hence, request of the firms is not agreed to.</p>

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36.	Annexure-1(A)	If firm is using similar subsystem as a part of one TRI-NETRA unit we will do the IEC 60571 test on one type of subsystem (i.e Annexure-1(A) table if we supplied one set of TRI-NETRA unit will have 2 similar displays we will do test IEC on one display only because both are identical)	Prototype test will be done only on one subsystem/components of Tri-Netra , if two similar subsystems/components are used in a loco set. This applies to display subsystem also.
37.	FogPASS Spec	About TRI-NETRA display / fog pass GUI guidelines not given, will RDSO provide the same or firm can follow their own protocol to meet the FRS if any change, RDSO will guide in the developmental phase or in field.	Please refer point no 30 above.
38.	FogPASS Spec Clause 7.2	Fog pass loco pilot interface (Fog pass FRS 7.2) is asking for LCD and LED on driver control panel and in TRI-NETRA main FRS is saying 12” to 19” display . if Fog pass display parameters or status indication can be displayed on 12” OR 19” display as a soft display as a parameters.	Please refer point no 30 above.
39.	ANNEXURE-G (form for evaluation of eligibility)	ANNEXURE-G(form for evaluation of eligibility) is asking for some confidential information like : (Details of Client to whom supplied) with Mobile/Landline of Contact Person and E-mail Id of Contact Person..ect In this case we will provide max disclosable information if any non- disclosable we will provide the remarks / comment with under taken letter to added in bid.	In case it is a confidential/security risk (e.g. Defence supply), firm may provide j information like postal address, organisation contact email-address for correspondence required to verify the supply credentials. For example, PO no. and name/address of PO issuing authority may be provided. In such cases, contact details of the client, mobile no. etc. may not be given. Reason to be recorded in remarks column for not providing the asked information.
40.	Extension of tender closing date	Extension of tender closing date from 25 th march to 25 th April 2021	Tender Closing Due Date has been extended from 25.03.2021 to 23.04.2021.

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Query raised by M/s MKU Ltd.			
41.	Para no 4 “Eligibility Conditions” sub Para 1	<p>Please refer to Para no 4 “Eligibility Conditions” sub Para 1</p> <p>We wish to bring to your notice that MKU Limited is Original Equipment Manufacturer of ElectroOptics Devices and holds a valid Defence Industrial License in this regard. We Indigenously Design, Develop and Manufacture Electro Optics devices in our own facility at Kanpur Uttar Pradesh India and have supplied to leading Armed Forces, State Police Forces, Railways etc.</p> <p>However, as per the clause mentioned here it is mandatory for OEM to have experience in supply of device for platforms and thus restricts capable OEMs to participate. So we request you to amend and allow Indian OEM to participate depending upon experience and capability.</p>	Please refer to reply given against Point No. 10 of this document.
42.	Earnest Money Deposit	<p>Please refer to Earnest Money Deposit Clause</p> <p>We understand that all the bidders are exempted from submitting the mentioned Earnest Money and shall submit the Bid Securing declaration as mentioned in the clause. Kindly confirm.</p>	Please refer to relevant clause mentioned at page no 5 of Tender Document. All bidders who are furnishing bid security declarations as per the prescribed format mentioned in the above clause shall be exempted from submission of EMD.
43.	Annexure 1(F) of Technical Specification	<p>Please refer to Annexure 1(F) of Technical Specification</p> <p>We wish to submit that being a development project there are multiple technicality which may change dimensionally according to development stages therefore the System Design documents requested in the referred Annexure practically may not be available with</p>	<p>In the Annexure 1(F), no detail design parameters have been asked. Only broad concept of design is required to be submitted by the firm to assess the capability and major design parameters of the system offered.</p> <p>In annexure 1(F) and 1(B), wherever it is not feasible to provide information against a particular serial no. ,</p>

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		<p>firms at such early stage. However, we shall submit the Capability of the Device to be offered in accordance to the requirement.</p> <p>We request to you allow the firms to submit the documents during the trials.</p>	<p>remarks may be offered against that serial no. Also, parameter values may be provided in the range wherever it is not possible to provide absolute value. Please also refer clause 2.0 of Special conditions of tender while filling up these Annexures.</p>
44.	<p>Bid Document (Indigenous Purchases) Para 0301 Sub Para (a)</p>	<p>Please refer to Bid Document (Indigenous Purchases) Para 0301 Sub Para (a)</p> <p>The referred clause only allows Manufacturer or Duly Manufacturer who regularly manufactures the item(s) and have adequate knowledge and practical experience.</p> <p>We request for a clarification on participation by firms with technical knowledge and capability.</p>	<p>Eligibility criteria mentioned in the tender document shall be the basis of evaluation of tender.Pl. also refer Clause 2300 of Instructions to tenderers for electronic tenders and general conditions of tender.</p>
45.	<p>Spec Final Draft Trinetra Rev 01 (Para 4.1)</p>	<p>Please refer to Para 4.1 of Spec Final Draft Trinetra Rev 01 dated 28thDecember 2020</p> <p>Request you to kindly specify the camera against FOG condition to be used for detection of Human Sized Object. We understand that Thermal Camera will be used for detection of Human Sized Object against FOG condition.</p>	<p>Kindly refer to clause 3 and 4 of Trinetra Spec Rev 1.1 issued on 09/02/2021.</p>
46.	<p>Extension of tender due date</p>	<p>We would like to request you to kindly extend due date by one month to enable us to develop a qualitative response in accordance to the tender requirement.</p>	<p>Tender Closing Due Date has been extended from 25.03.2021 to 23.04.2021.</p>

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Query raised by M/s Paramount Communications Limited			
47.	Extension in Bid Submission date	Extension in Bid Submission date: We request for a 1 Month extension in the bid submission instead of 25/03/2021, as we have to finalize our contract and terms with the Israeli OEM.	Tender Closing Due Date has been extended from 25.03.2021 to 23.04.2021.
48.	Eligibility Criteria	Changes in Eligibility Criteria: a. As per the clause no. 1 and 3 in eligibility conditions the tenderer must have the experience of minimum 5 sets supplies and commissioning in application in Aircrafts/Helicopters/ Rolling stocks / Ships/Automobiles/ Aerial Remote sensing, during period beginning from 2015-16 and up to tender opening date having following capability: ---- - "Imaging of object at a distance of minimum 1.0 Km in day or night conditions during normal or foggy weather."---- OR----- "Detection and ranging of object at a distance of minimum 1.0 Km in day or night conditions during normal or foggy weather."	No comments.
		The clauses also says that the tendered must be an OEM/System Integrator or an Authorized dealer of the OEM/System integrator.	Kindly refer clause no 3 mentioned on page no 3 of tender document , which is self explanatory.
		c. We all are aware that there are no Indian origin manufacturers/developers/System Integrators for the similar devices in Aircrafts/Helicopters/Rolling stocks/Ships/Automobiles/ Aerial Remote sensing.	No comments.
		d. We request that the Authorized Dealer of the OEM/System Integrator should be allowed to submit its bid, with the past experience of the OEM/System Integrator, where in the meanwhile we are moving towards Make in India with our OEM.	Kindly refer Point No. 34 above

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Annexure (i)

Criteria for Field Trial

1. Availability (%) will be calculated at the end of Field trial period (12 months) as per formula given below:

Table (i)

S. No.	Loco No.	Details of TRINETA System	Date of defect in system	Date of arrival in Shed after defect	Date of rectification	Down Time (Days)
(a)	(b)	(c)	(d)	(e)	(f)	(g)

$$\text{Availability (\%)} = [1 - (\text{Total downtime period} / \text{Total field trial period}) * 100]$$

$$\text{Down time period} = \{(f) - (e)\}$$

$$\text{Grace period} = \{(d) - (e)\}$$

$$\text{Total field trial period} = \{(\text{Date of clearance of functional trial/start of field trial, whichever is later}) - (\text{date of completion of field trial}) - (\text{grace periods})\}$$

2. In case, Availability is found to be less than 95%, field trial will be extended and availability target will be revised as per the table (ii). However, if availability is found to be less than **74.99%** after any stage of evaluation, prototype shall be rejected. Calculation in the extended period shall be as under:

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Total extended field trial period= {(Date of start of extended field trial) - (date of completion of extended field trial) - (grace periods)}

Table (ii)

S.No.	Availability (% Range) after end of initial field trail	Extension of Field Trial period	Availability target for extended field trial.	Remarks
1.	≥95%	NA	NA	Prototype passes the field trial.
2.	85-94.99%	6 Months	96%	No further extension shall be allowed.
3.	75-84.99%	6 months	98%	No further extension shall be allowed.
4.	≤ 74.99%	No extension	NA	Prototype fails in the field trial.

NOTE:

1. Data are to be recorded as per table (i) by the homing shed, which will be considered for calculation of Availability.
2. Availability Percentage to be rounded off to two decimal places.
3. Maximum field trial period allowed is 18 months.
4. Date of arrival in shed and rectification date to be excluded in the downtime period.
5. Access to data recorded in the system is permissible based on confidentiality undertaking by the firm (Clause no.16 of the specification) against the reported failures for analysis and rectification.

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Annexure (ii)

Guidelines for Integration of FogPASS features into TRI-NETRA system

Functionality of FogPASS is to be incorporated into TRI-NETRA system. Therefore specification of TRI-NETRA (Spec no MP.0.0400.17, Rev.-1.1) references FogPASS specification no. RDSO/SPN/201/2010, Ver. 2.0 as annexure-4. **All functions related to safety of train operations (column C) of FogPass are to be embedded in the software and hardware of TRI-Netra system.** However, system designer can decide upon the scheme of integration as per their own design for clauses mentioned in Column (D).

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Clause no. of spec. (A)	Title (B)	Sub-clauses to be included in TRI-NETRA system as per FogPASS spec (C)	Sub-clauses that may be integrated (or excluded) in TRI-NETRA system as per vendor's own design (D)	Remarks (E)
3	Scope of Application	3.1 and 3.2		No separate hardware is required
4	Terminology	4.1 to 4.3		Same terminology to be used for Tri-netra spec
5	General Requirement	5.1 to 5.5	5.6 to 5.8	Common storage device for Fogpass and trinetra to be used
6.1	Location Identification & Route Log	6.1.1 to 6.1.4		FogPASS GPS functionality to be retained.
6.2	Pre-Warning, Display & Announcement	6.2.1 to 6.2.14	,	FogPASS GPS functionality to be retained. Parameters and alarm protocol must be incorporated in the TRINETRA System. However GUI to be finalised mutually during design stage.
6.3	Others	6.3.1 to 6.3.4		Standalone FogPASS is not required.
7.1	GPS/GNSS	7.1.1 (ii) to 7.1.1 (iv)	7.1.1 (i, iv to xiii)	

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Clause no. of spec. (A)	Title (B)	Sub-clauses to be included in TRI-NETRA system as per FogPASS spec (C)	Sub-clauses that may be integrated (or excluded) in TRI-NETRA system as per vendor's own design (D)	Remarks (E)
		7.1.3	7.1.2 and 7.1.4	
7.2	Loco Pilot Interface		7.2.1 (a) (b), (c), (d), (e)	
7.3	Power Supply & Battery Backup	Not applicable	Not applicable	As hardware of the FogPASS system will be integral part of the Trinetra system, Hence these clauses are not applicable
7.3.4	Charger	Not applicable	Not applicable	
7.4	Data Input & Output	7.4.1 to 7.4.6		
7.5	Electrical Protection	Not applicable	Not applicable	As hardware of the FogPASS system will be integral part of the Trinetra system, Hence these clauses are not applicable
7.6	Upgradeability for GSM	Not applicable	Not applicable	
7.7	Other Requirements	Not applicable	Not applicable	
8.0	Performance & Environment Requirements	Not applicable	Not applicable	

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Clause no. of spec. (A)	Title (B)	Sub-clauses to be included in TRI-NETRA system as per FogPASS spec (C)	Sub-clauses that may be integrated (or excluded) in TRI-NETRA system as per vendor's own design (D)	Remarks (E)
9.0	Contents & Packing	Not applicable	Not applicable	
10.0	Documentation	Not applicable	Not applicable	
11.0	Tests & Verification	Not applicable	Not applicable	
12.0	Hardware Warranty	Not applicable	Not applicable	
13.0	Information to be given by the Purchaser	Not applicable	Not applicable	

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