Appendix 'A'

RFI QUESTIONNAIRE

1. Following Parameters/ specifications of Original Equipment Manufacturers (OEM's) equipment based on **Uncooled Thermal Imaging Technology** is requested in the responses to our Request for Information:-

Ser No	Question/Specification	Reply
Technical Specification		
(a)	**Detector Type**. Specify if micro-bolometer detector is being used with the Uncooled Thermal Weapon Sight offered? Also specify if the technologies are Amorphous Silicon or Vanadium Oxide based?	
(b)	**Detector Resolution**. Is the devices offered, conforming to minimum FPA of 640 x 480 with pitch of 17 microns or less. Specify the FPA and pitch being offered.	
(c)	**Mounting**. Specify the design and mounting parameters. Is the Thermal Weapon Sight offered capable of mounting on a Picattiny Rail (Mil Std 1913).	
(d)	**Reticle Pattern**. Is the Thermal Weapon Sight provided with reticle pattern which enables aiming and range estimation for **7.62x51mm** calibre. Define the type of reticle pattern made available in your weapon sight. Is it **possible to customize** the Reticle Pattern?	
(e)	**Zeroing**. Specify the zeroing mechanism for the sight.	
(f)	**Field of View**. Specify the Field of view of the weapon sight in **Azimuth (Horizontal)** and **Elevation (Vertical).** What is the maximum Field of View that can be offered?	
(g)	**Dioptre Adjustment**. Specify the Dioptre Adjustment and Eye clearance.	
(h)	**Display**. Specify display used in TI sight whether OLED/ LED/ LCD.	
(j)	**Zoom**. Specify the following :-	
	(i) Optical Zoom/Magnification.	
	(ii) Digital/Electronic Zoom.	
	(iii) Whether zoom provided is **'Fixed'** or **'Variable'**.	

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(k)	**Image Polarity**. Specify Image Polarity available in the Thermal Weapon Sight.	
(l)	**Detection, Recognition and Identification Ranges**. Specify Detection, Recognition and Identification ranges during clear night conditions and adverse weather conditions (specify adverse weather conditions). Also, specify type of target and interpretation of these terms for field evaluation.	
(m)	**Features**. Specify type of controls that will be made available on the Thermal Weapon Sight for users application in active operations.	
(n)	**Transfer of Data**.	
	(i) Does the Thermal Weapon Sight enable generation of video and still images?	
	(ii) Can these be transferred into display device, specify the medium of transfer and display device?	
	(iii) What format the video and still images will be available as output ie Analog or Digital.	
	(iv) Define the type of ports(viz USB/RS 232/Any other) being made available in the Thermal Weapon Sight for transfer of these video and still images.	
	(v) Specify what will be the resultant losses in transmission if the data output of your device be transmitted over radio.	
(o)	**Power Supply**.	
	(i) Specify the type and size of rechargeable battery being used- viz Ni Cd/ Li Ion/Ni MH or any other better suited battery.	
	(ii) What is the endurance of the batteries for continuous use at the operating temperature range between minus 20^0C and plus 45^0C.	
	(iii) What is the recharge cycle of battery being offered (Number of times full charge and full discharge of battery).	
	(iv) Arrangement for charging of batteries- AC /DC source or both.	
	(v) Specify if the device can function with commercially available Alkaline batteries when required. If yes, specify number of hours it can sustain. Also confirm if the same can be used in the same housing provided or alternate arrangements will be made.	

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	(vi) Is the battery status display along with low battery indicator being provided?	
Physical Characteristics		
(p)	**Weight**. Specify weight of the Thermal Weapon Sight including the batteries and picatinny mount adapter.	
(q)	**Colour**. What is the colour of the Thermal Weapon Sight?	
(r)	**Carriage, Storage& Transportation**. Specify the arrangement/ case being provided for carriage, storage and transportation of the device.	
Operational and Maintenance		
(s)	Does the Thermal Weapon Sight meets the testing parameters specified in JSS-5855-11-2009 read in conjunction with JSS-55555-2012	
(t)	Specify operating temperatures.	
(u)	Specify Storage Temperature.	
(v)	Specify Humidity factors.	
(w)	What is the service life of the Thermal Weapon Sight? Specify in terms of hours. Also specify shelf life of the equipment.	
(x)	Does the thermal weapon sight meet the EMC/EMI standards? Specify the standards.	
(y)	Does the thermal weapon sight have a Built In Test Equipment (BITE).	
(z)	Specify MTTR & MTBF. Also forward procedure (s) followed for testing requisite parameters.	
Miscellaneous		
(aa)	List out Countries/World Armies in which your Thermal Imaging weapon sights are being used and since when.	
(ab)	Indicate the approximate cost of the equipment.	
(ac)	What all accessories will be offered along with the Thermal Weapon sight?	
(ad)	Specify if fused output of TI Imagery with any other sensor is available. Specify technical details of the same including advantages and weight consequences.	
(ae)	Specify earliest time frame for establishment of manufacturing facilities for indigenous production of TI Sights.	

Ser No	Question/Specification	Reply
Indigenisation		
(af)	Does your firm have a license to manufacture Night Sights (TI) from Government of India?	
(ag)	If no, has your firm applied for obtaining license to manufacture Night Sight (TI) in India?	
(ah)	If you are an Indian firm, do you have a joint venture with any Foreign OEM or in-house proven expertise? If yes, please specify and give details of the same.	
(aj)	If you are an Indian vendor, are you capable of Indigenous Design and Development of the Night Sight (TI). If yes, what are the terms and conditions and timelines envisaged for the same? do you have the patent and/or Intellectual Property Rights (IPR) for the indigenous design? please give details.	
(ak)	What is the level/percentage of indigenization in terms of :- (i) Cost. (ii) Technology. (iii) Raw material. (iv) Overall content.	
(al)	If it is intended to carry out production in India, please specify the following :-	
(am)	What is the minimum quantity of Night Sights (TI) to be bought/ cost for transfer of technology?	
(an)	Terms, conditions and capability for setting up manufacturing facility in India.	
(ao)	Is the key technology or raw material for manufacture of Night Sight (TI) available in India? if yes, please provide details of the same.	
(ap)	If you are a Foreign OEM, do you have any joint venture with an Indian firm? If yes, please specify and give details of the same.	
Tentative Cost		
(aq)	What is the tentative cost of each Night Sight?	

Ser No	Question/Specification	Reply
(ar)	What is the cost of its accessories? Please provide the details of additional accessories along with their price?	
(as)	What is the tentative cost of product support package and training?	
(at)	Original Equipment Manufacturers (OEM) / copyright holders are requested to confirm that they are willing for a demonstration of Night Sight (TI) in India on a no cost no commitment basis.	
(au)	Original Equipment Manufacturers (OEM) / copyright holders are requested to confirm that they can supply limited equipment for trials on no cost no commitment basis.	
(av)	What is the OEMs monthly and yearly production capability of the Night Sight (TI)?	
(aw)	OEMs are requested to indicate the minimum quantity of Night Sights (TI) with which, they would be willing to offer 'transfer of technology'.	
(ax)	**Time Schedule**. Tentative date of issue of RFP is Mar 2021. Total quantity required is 5,700 Night Sights (TI). After signing of the contract, the required night sights should be delivered commencing earliest but not later than six (06) months and completing earliest but not later than twenty four months (24). Will your company be able to adhere to the laid down time lines and deliver the given quantity of the product in the given tentative timeframe?	